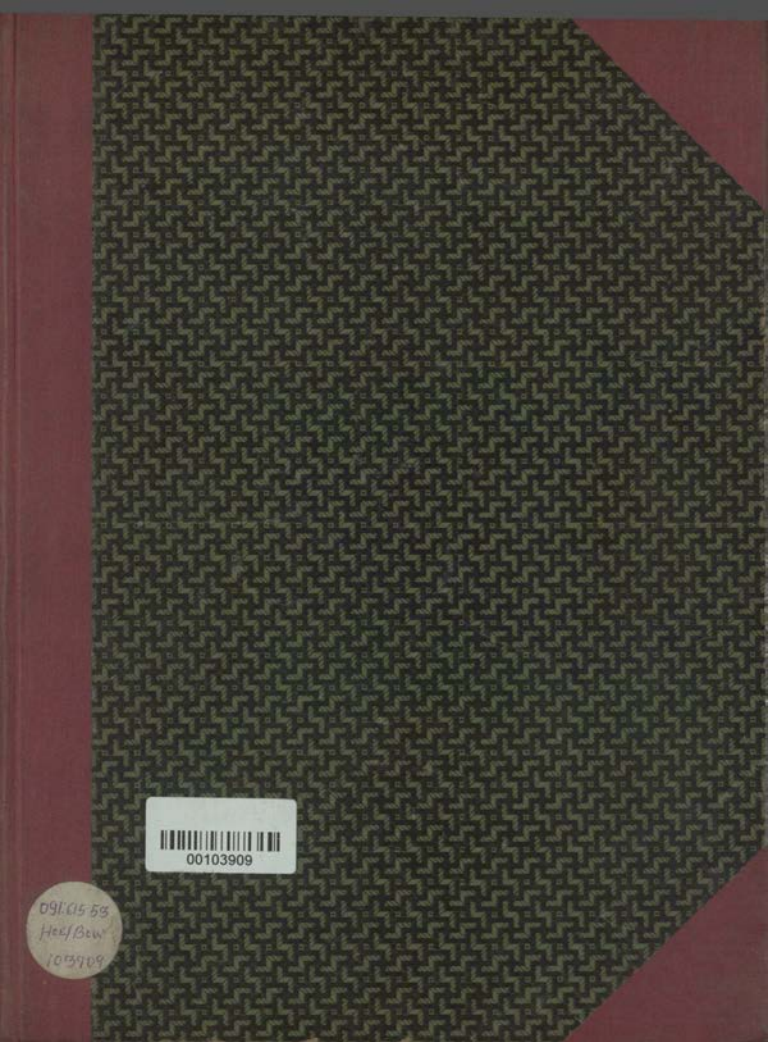
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THE BOWER MANUSCRIPT.

FACSIMILE LEAVES, NAGARI TRANSCRIPT, ROMANISED TRANSLITERATION AND ENGLISH TRANSLATION WITH NOTES.

103909

EDITED BY
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LATE PRINCIPAL, CALCUTTA MADRASAH.

"REVISED TRANSLATION OF PARTS I—III."

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LIST OF ABBREVIATIONS.

AH.	=	Aṣṭâṅga Hṛidaya, ed. A. M. Kunte, 2nd edition, 1891.
AK.	=	Amara Kôśa, ed. V. Jhalakikar and R. G. Bhandarkar, Bombay, 1896.
AS.	=	Aṣṭâṅga Saṁgraha, ed. Ganeśa Tarte, Bombay, 1888.
BhP.	=	Bhâva Prakâśa, ed. Jîvânanda Vidyâsâgara, Calcutta, 1875.
BhV.	=	Bhaiṣhajya Vijñâna.
Ch.	=	Charaka Saṁhitâ, ed. Jîvânanda Vidyâsâgara, 2nd edition, 1896. Ch. (G.)=ed. Gangâdhar.
Chd.	=	Chakradatta, ed. Pyari Mohan Sengupta, Calcutta, 1295.
DhN.	=	Dhanvantari Nighaṇṭu. Ânandâśrama edition, 1896 (see RN.)
HS.	=	Hârita Saṁhitâ, ed. Binod Lal Sen Gupta.
Ind. Ant.	=	Indian Antiquary.
Journal ASB.	=	Journal of the Asiatic Society of Bengal.
Journal GOS.	=	Journal of the German Oriental Society.
KS.	=	Kaliyâga Saṁgraha, Dr. P. Cordier's Manuscript.
M.	=	Muktâvali (Âyurvêdîya Dravya-guṇa Abhidhâna), ed. Kâli Prasanna Vidyâsarkâr, Calcutta, Saka 1817.
Med. Dict.	=	Vaidyaka Śabda Sindhu, a Lexicon of Hindu Medical Terms, by Umêśa Chandra Gupta Kavirâtna, Calcutta, 1894.
Mat. Med.	=	The Materia Medica of the Hindus, by Udoy Chand Dutt. Revised edition, Calcutta, 1900.
MN.	=	Mâdhava Nidâna, ed. Jîvânanda Vidyâsâgara, 3rd ed., 1901.
Nid.	=	Nidâna, ed. Udoy Chand Dutt, Calcutta, 1880.
Pet. Dict.	=	Smaller St. Petersburg Dictionary, by Otto Böhtlingk, 1879.
Pharm. Ind.	=	Pharmacographia Indica by Dr. William Dymock, 1890.
RN.	=	Râja Nighaṇṭu, Ânandâśrama ed., 1896. (See DhN.)
Rec. Dec.	=	Récentes Découvertes de MSS. Médicaux Sanscrits, dans l' Inde, by Dr. P. Cordier.
S.	=	Suśruta, ed. Jîvânanda Vidyâsâgara, 3rd ed., 1889.
Śâ.	=	Śârngadhara Saṁgraha, ed. Pyari Mohan Sengupta, Calcutta, 1296.
SY.	=	Siddha Yôga or Vṛinda Mâdhava, Ânandâśrama ed., No. 27, Poona, 1894.
V.	=	Vaṅgasêna, ed. Nanda Kumar Goswami, Calcutta, 1889.
Watt	=	Dr. Watt's Economic Products of India, Calcutta, 1883.
Wise	=	Commentary on the Hindu System of Medicine, by Dr. Wise, New issue, London, 1860.

(kh)âlityaṁ yach=chir=ôtthitaṁ[79] [ı] na tat=siddhyati sâddhyan=tu navaṁ samyag= 118
upâcharêt [॥ 117 ॥] Khâlitya-palitê pûrvvaṁ bahuśô vêdhayêt=sirâḥ [ı]
5 dushṭa-śôṇita-śuddhasya vaman-âdi-k-kriyâ hitâ [॥ 118 ॥] yath-ôktaṁ [× × ◡ —] paśchâch= 119
chhuddha-kôshṭhaḥ prayôjayêt [ı] taila-yôgâṁ-ś-cha vividhân=kêśa-râgâṁ=s=tath
=aiva cha [॥ 119 ॥] kêśa-saṁjananânâṁ=ś=ch=aiva tathâ saṁvardhanâni cha [ı] 120
6 prakshâlanâś=cha kêśânâṁ yathâ dôsha-harâ hitâḥ [॥ 120 ॥] ⊙ (॥) Svâdv-ambla-lavaṇ- 121
ôpêtair=ghṛitair=mâruta-kâsinam [ı] s-ânnair=upâcharêd=dhîmân=kêvalair=v=vâ
yathâ-balam [॥ 1:1 ॥] Grâmy-ânûp-ôdaka[80]-rasaiḥ sa-guḍaiḥ sa-pa- 122
7 lâṇḍubhiḥ [ı] ambla-snigdh-ôshṇa-madhuraiḥ-bhôjyâ gôdhûma-ś(â)layaḥ [॥ 122 ॥] 123
surâṁ sa-maṇḍâṁ gharm-âmbu rasân=v=âpi prakâmataḥ [ı] vâta-kâsê bahu-snê-
haṁ sa-guḍ=aṁ vâ payaḥ pivêt [॥ 123 ॥] Śṛiṁgavêra-shaḍi-drâ- 124
8 kshâ-śṛiṁgi-pippali-bhârggibhiḥ [ı] guḍa-taila-yutô lêhô hitô mâruta-kâsinâm [॥ 124] 125
Pippali-mârut-âjâji-shaḍi-pushkara-chitrakaiḥ [ı] sa-saindhavam=idaṁ chûrṇaṁ
hitaṁ mâruta-kâsinâm [॥ 125 ॥]
9 Palâni kvâthayêt-triṁśat-kaṇṭakâryâ jal-âḍhakê [ı] chatur-bhâga-sthitê pûtê dadyâd= 126
guḍa-palâny-agê[82] [॥ 126 ॥] chûrṇair=n=nâgara-bhârgy-êlâ-pippali-shaḍi-chitrakaiḥ 127
[ı] ghṛita-taila-palaiś=ch=âpi
10 (sa)my[u](ta)ṁ lêha-vat=pachêt [॥ 127 ॥] chaturbhir=â ghanîbhâvâch=chhitê cha 128
dvi-palaṁ madhu [ı] pippali-pala-chûrṇaṁ cha datvâ[83] lihyât=tu kâsa-nut
[॥ 128 ॥] Daśamûla-kashâyêṇa bhârggi-kalkaṁ ghṛitaṁ pachêt [ı] 129
11 [daksha-tittiri-niryûhê tat=para]ṁ[84] (vâta-k)âsa-nut [॥ 129 ॥] Kaṇṭakâryâ rasa-prasthê 130
ghṛitasya kuḍavaṁ pachêt [ı] punarnnavâyâḥ kalkêna tat=paraṁ vâta-kâsa-nut
[॥ 130 ॥] Bhârggi-kalkaṁ ghṛitaṁ ch-âtha pachêd=dadhni chatur-guṇê [ı] 131
12 (v)[y]âgh[r]i-rasa[85] dvi-guṇitaṁ vâta-kâsa-haraṁ paraṁ [॥ 131 ॥] paittikê sarppishaḥ 132
pânaṁ hitaṁ syât=sa-virêchanam [॥ 132a ॥]

[79] Or perhaps *chhir-ôtthitaṁ*.
[80] Supply perhaps *yath-ôkit-dśasaṁ*.
[81] Read *sudaka*.
[82] The reading of *agê* is uncertain.
[83] Read *datted*.
[84] Supply this from the Chakradatta, formula 30 on p. 216.
[85] Read *rasaṁ*.

THE BOWER MANUSCRIPT.

PART I.—PLATES I TO V.

B.—TRANSLATION.

First Leaf: Reverse.

(Verse 1.)—Om! The holy summit of boundless wealth, inhabited by companies of Dêvarshis and Siddhas, by Kinnaras, Nâgas, Yakshas *and* Vidyâdharas, delightful with clouds towering up to the firmament of heaven, *all*.....overtopping;

(2.) Where, scattered in every direction by reason of the multitude of the rays of thousands of protruding gems, *and* dissolved by fear, darkness, being apprehensive of the abode of the moon, stars, sun and fire, does not *venture to* approach even in the nights of the rainy season;

(3.) Which is incessantly worshipped by numerous companies of sages accompanied by their disciples, carrying wood, kuśa-grass, fruits, water *and* flowers; in whose thickets the trees have their branches searched by the celestial maidens in quest of flowers;

(4.) Where, under the touch of the rays of the lord of the stars (*i.e.*, the moon), who permanently rests in his *peculiar* place on the crest of matted hair of the Three-eyed-one (*i.e.*, Śiva), the precious moon-stones, even by day, let flow a copious stream of water, cool[1] and *clear*, like[2] the crystal stone of the Himâlayas[3];

(5.) In whose delightful thickets, crowded with trees bearing flowers and fruit, resounding with the voices of swarms of various kinds of birds, *and* having their rocky ground washed by the water emitted by the clouds, the medicinal plants glow at night like sacrificial fires;

(6.) Where the lions, with thick manes brighter than the rays of the moon, *and* shoulders besmeared with the matter oozing from the sides of the heads of elephants in rut, do not brook even the thunder of masses of clouds, but in derision roar with mouths like mountainous caverns;

[1] The MS. reading *tîtan* gives no sense. I conjecture *śîtan* (i.e., *śîtam*) 'cool.'

[2] Or: 'like the ice-like crystal stone.' There is a pun in *hima-vat*: it may mean 'Himâlaya' or 'ice-like.'

[3] The moon-stones are usually said to emit water at night when the moon shines; but on the Himâlayas they are here said to do so even by day, because there the moon is constantly present, having her place on the crown of Śiva who resides there.

(7.) On that mountain, which is, as it were, the cream of the whole earth *and*, through its gifts of the riches of the world, the benefactor of all *creatures*,—on its summit, delightful with its trees bearing flowers and fruit at all seasons, there dwell the following Munis (*i.e.*, sages) of enlightened mind:

(8.) Âtréya, Hárita, Paráśara, Bhéla, Garga, Śámbavya, Suśruta, Vasishṭha, Karála and Kápya.[4] Hundreds of times they used to roam about, in company of one another, enquiring into the tastes, properties[5], forms, powers and names of all medicinal plants.

(9.) Having observed *a plant* with leaves dark-blue like sapphire, *and* with bulbs white like jasmine, crystal, the white lotus, moon-rays, conch-shell or mica, *and* having his attention aroused *thereby*, Suśruta approached the Muni King of Káśí (*i.e.*, Benares) *with the enquiry*, what it could be. Then that holy man replied to him as follows:

(10 and 11.) Of yore the lord of the Asuras himself drank the forth-churned nectar; his head the holy Janárdana (*i.e.*, Vishṇu) cut off. (11) The windpipe remained attached to the severed head; *from it* drops fell on the ground, *and* those were its (*i.e.*, garlic's) first origin.[6]

Second Leaf: Obverse.

(12.) Hence Bráhmans do not eat it, because of its having originated from something connected with a (living) body; its evil smell also the learned in sacred lore declare to be due to the same cause.

(13.) Because of the absence of salty taste they call it 'Rasúna'[7]; and its designation

[4] From among these Átréya is quoted several times in Part II (*e.g.*, vv. 37, 75, etc.). A work ascribed to Hárita and called Hárita Saṁhitá has been published by Kaviráj Binod Lal Sen (Calcutta). It is said to have been declared to Hárita by Átréya (*Átréyn-muni-váchitá*) in his Himálayan retreat. Similarly the present work professes to be by Suśruta, to whom it was declared by the King of Káśí who appears to have been in retreat as a Muni. In Ch. I, 25^{25} (v. 3, 5) a certain Vámaka is designated *kásípati* or *kásírája*, lord or king of Káśí, and mentioned as putting a question to a gathering of Rishis, or Sages, of whom Punarvasu (*i.e.*, Átréya) replies. A work, professing to be a re-cast of the Átréya Saṁhitá, and called Vangasena, has been published by Pandit Nanda Kumar Gouvami Baidya. Suśruta is mentioned also below, in v. 40. A formula of Bhéla is quoted in Part II, vv. 802-804, and a manuscript of the Bhéla Saṁhitá is described in Burnell's Tanjore MSS., p. 63 ff.

[5] I propose to read *guna* (as in verse 13). The MS. reading *guna* yields no satisfactory sense. *Guna* refers to the five elements: earth, water, fire, air and ether, which are the constituents of all material objects, and after which, according as one or the other predominates in an object, the latter is classified. See Suśruta I, 41.

[6] On verses 10-13, on the origin, nature, uses and efficacy of garlic, compare Ch., I, 27^{108}, AH., I, 6, verses 108, 109^{88}, VI, 59, verses $111\text{-}178^{89}$; V., XCI, 14, 15^{104}, BhP., I, 1^{124}, HS., V, 4^{87}. The latter devotes a whole chapter to the subject, but its formulas are different. AH. has also a long account, which substantially agrees with that in our MS., viz., its verses 112, 113 with our v. 10-12 (origin), its v. 108, 109 with our v. 13-16 (nature), its v. 114, 115 with our v. 17-19 (festival), its v. 116-125 with our v. 20-27 (first formula), its v. 126 with our v. 28, 29 (2nd formula), its v. 127 with our v. 31 (3rd formula), its v. 128-130 with our v. 38-42 (efficacy). In AH. the story of the rape of the Amṛita is told of the Asura Ráhu; and this is the usual version, whence garlic is also called *rákshachchhidra* 'leavings of Ráhu,' *rákshaśirishṭa* 'produced from Ráhu.' In HS., however, it is told of Vaimatya (*i.e.*, Garuḍa), who is there said to have flown off to heaven with the Amṛita in his beak, during the strife of the gods and demons at the time of the churning of the ocean; but from fatigue he let fall a few drops, which fell on a spot soiled by ordure; thence arose garlic. In BhP., (also quoted in the Muktávalí, p. 304) the story is also related of Garuḍa (the *sura-sattama* or 'best of gods'), though without any details. Both stories are told in the Mahábhárata, Ádiparvan, chapt. 17-34, but there the incident of Garuḍa's rape is unconnected with the churning of the ocean. At the churning, when the Amṛita appeared, the gods and demons fought for its possession; Vishṇu gave it to the gods; Ráhu in disguise, mixing among the gods, drank of it, whereupon Vishṇu cut off his head. The gods carried the Amṛita to heaven. Later on Garuḍa, to remove a curse from his mother Vinatá, robbed the gods of their Amṛita, but afterwards, having accomplished his object, restored it to Indra. The same stories are also told in the Rámáyaṇa and several of the Puráṇas (*e.g.*, Vishṇu Pur., I. ch. 9); but nowhere, so far as I am aware, is the origin of the garlic connected with any rape of the Amṛita. There is a somewhat similar incident related about *Pippali*, long pepper, in the Atharva Veda, VI, 109, 3: *asvarda tvá sáyakhanam dévás tv-ádaduṣas pari*, *i.e.* the Asuras did dig thee into the ground, the gods cast thee up again. See Prof. Bloomfield's Translation in the Sacred Books of the East, vol. XLII, p. 22.—For some differences in the account of the garlic, see notes 7, 9, 13.

[7] *Rasúna*, according to popular etymology, is derived from *rasa* 'taste' and *úna* 'without,' which would properly produce *rasúna*. Or the intended etymology may be from *ra* (for *la*, abbreviation of *lavana*: 'salt' and *úna* (= *ítapa*) 'destitute of.' In BhP., I, 1^{124} it is said to have its name from the absence of the *amla* or acid taste; and the saline taste is there expressly ascribed to the tips of its stalks (*nál-ágra*). In HS., V, 4^{88} it is also said to be named from the absence of a *rasa*, but the *rasa* is not specified.

of 'Laśuna' is well known among the people. What need to mention the many names by which it is called in the languages of *different* countries? Hear only its tastes, properties, and powers on account of *their importance for* its medicinal use.

(14.) In tasting as well as in digesting it is declared to be pungent, but in digesting it is also[9] said to be sweet; it is light[9], and, as shown by its smell, difficult to digest[10]; with regard to its power, it is hot, and it is famed as an aphrodisiac.

(15.) By the foremost Munis it has been declared to be, on account of its sour, hot and oily nature, a means of reducing the strength of the air-humour, and[11] on account of its sweet and bitter nature, as shown by its taste, also to be a means of abating the bile-humour. On account of its hot, sharp, and pungent nature it is said by the learned to be a subduer of the strength of the phlegm-humour. It was thus appointed by the Creator a means of removing the *defects of these* three humours, in order that it should cure all diseases.

(16.) It kills also the air-humour when it has got into the bones, and rectifies also the phlegm-humour when it (*i.e.*, its disorder) is not of any long standing; it also greatly stimulates the digestive power, and may be considered an excellent means for restoring vital power[12] and colour.

(17.) Now by those who want to enjoy in comfort many sorts of liquor, flesh, clarified butter, barley and wheat, the festival of the garlic, here (vv. 18, 19) described, is to be observed in the winter season as well as in the months of Mádhu and Mádhava.[13]

(18.) When trimmed girdles, fit for the conquest *of men*, are given up by the women, *and* necklaces are not worn on (*lit.*, do not approach) their bosoms, on account of their distressing cold, *and when* enjoyments on the roofs of one's mansions, *otherwise* so pleasant

[9] *Anyo*, lit. 'another,' 'a second', hence 'also.' It would seem to imply the doctrine that garlic possesses both tastes, the pungent (*kaṭu*) as well as the sweet (*madhura*). So it is described by S., I. 46[128] (v. 34) and HS., V, 4[409], but there garlic is characterised as 'heavy' (*guru*), while in our MS. it is said to be 'light' (*laghu*); see note 9. As pungency is thought to go with 'heavy' digestion, and sweetness, with 'light,' there would seem to be some inconsistency in these descriptions. It is perhaps for the purpose of removing this inconsistency that AS., I, 7[38] (ll. 16, 17) distributes the tastes in different parts of the plant: the leaves (*patra*) and stalk (*nadhya*) are said to be sweet, but its bulb (*kanda*), pungent. This particular distribution is not taught by any other medical authority, though Arunadatta, in his comment on AH., I, 6 (v. 108, 109) quotes it. But he adds that the other doctrine, found in AH., I, 6 (v. 108) and Ch., I, 27[109] (v. 171), that garlic is pungent and heavy really refers only to its bulb (*kanda*), which is the part that is principally used in formulæ. BhP., I. 7[271] gives another distribution, rather different from AS.

[10] In all other medical works, on the contrary, garlic is said to be *guru* or 'of heavy digestion;' see the references in note 6. Digestion (*pāka* or *vipāka*) is said to be of two kinds: *guru* or heavy (or brisk) and *laghu* or light (or sluggish). The former is said to be sweet (*madhura*), the latter, pungent (*kaṭu*). Drugs in which earth and water predominate (see note 5) cause heavy, while drugs in which fire, air and ether predominate, cause light digestion. In the latter urine and fæces are obstructed (*baddha-viṇmūtra*), while in heavy digestion they are abundant or loose (*sṛiṣṭa-viṇmūtra*). Purgative drugs, accordingly, are said to contain an abundance of earth and water, while emetics have more of air and fire. In light digestion the tendency is said to be upwards, in heavy, downwards. See S., I., 40[309], 41[315], Ch., I, 26[103] (vv. 89-87). For a definition of *pāka*, see AH., I, 9, v. 20.

[11] The original reading was *durjayo* 'difficult to get rid of,' which is still distinctly traceable in faded ink below the revised reading *durjaro* 'difficult to digest.' In that case the meaning is, 'as to its smell, it is difficult to get rid of.' In either case, the purport of the passage is the same, *viz.*, that the persistence of the smell proves the difficulty of digestion.

[12] The following line does not scan in the original, unless *sa* is omitted. Another difficulty is *pitta-hāsa*. There is no taste called *pitta*, so far as I am aware. I have translated 'bitter,' taking *pitta* to be a clerical error for *tikta*.

[13] On *bala*, or 'vital power,' see S. I. 15[78]. It is the resultant of the seven *dhātus* or 'constituent elements of the body,' and is also called *ójas* or *tejas*. See verses 44-46.

[14] *Hima-kāla* 'winter,' also called *Śīta-kāla*, includes the two seasons *Hémanta* 'winter' and *Śiśira* 'frost.' The former comprises the two months *Agrahāyana* and *Pausha* (½ November—½ January), the latter the two months *Māgha* and *Phālguna* (½ January—½ March). *Madhu* and *Mādhava*, commonly called *Chaitra* (½ March—½ April) and *Vaiśākha* (½ April—½ May), are the two months that constitute the season of *Vasanta*, or 'spring.' Garlic is, therefore, recommended to be used in the winter and spring. Compare with this AH., VI, 39, verse 114[809], where garlic is recommended to be used in the winter and spring (*śīte, vasante*) by sufferers from phlegm, and in the rainy season (*ghanōdaye*) by sufferers from air. See the following note.

from the contact with the multitude of the rays of the moon, are not coveted, at that time it should be observed, also when Aguru (fragrant aloe) is much esteemed, and *the bodies are* daubed with Kumkuma (saffron).[14]

(19.) Then in the fronts of the houses, on their gateways, and on the doors of the pavilions[15], erected over them, garlands of garlic richly set with its bulbs[16] should be displayed, and on the ground itself one should have worship performed. One should also cause the people of one's household to wear chaplets made of the same (garlic). This is the manner *for observing the festival*, appointed for the people, *and* known by the name of Svalpôvamâ.[17]

(20—27.) Now *the first formula*.[18] Having purged his body, and made himself thoroughly clean, and having worshipped the gods, brâhmans and fire, *the patient* should drink, on a day marked by an auspicious constellation of the planets, of the fresh juice of garlic, strained through a piece of cloth: (21) either one kuḍava[19] or half a kuḍava or one and a half kuḍava or even more;

Second Leaf: Reverse.

there is here no fixed measure; let him drink with due regard to the diseases caused by the strength of the humours. (22) While he is drinking, one should gently blow on him soft currents of air with fans made of palm leaves; and when he swoons whilst he is drinking, one should sprinkle him with cold water and *rub him* with *paste of* sandal. (23) Of this juice, fortified with one-third part of surâ (spirits of rice), he should sip a mouthful[20], and first stopping a moment to let it play in the throat, he should drink it together with the rest. (24) When this is digested, one who is accustomed to a diet of milk and rice may be served with milk, or *he may be served* with the broth of game, and with dainty porridge made with split pulses, combined with oleaginous substances[21]; *but* he should take these moderately and only once a day.

[14] *Kuṅkuma-dâkṣâ*, lit., 'marks or dashs of kumkuma,' *i.e.*, 'when the body is bedashed with the paste of kumkuma rubbed on it.' The first part of this verse describes the winter, the last part the spring (or early summer). *Kuṅkuma* and *aguru*, like *chandana* (see verse 22), are considered cooling, and a paste of them is rubbed on the body for relief from the great heat of the early summer. In AH., I, 3, verse 20 [1], paste of *karpûra*, *chandana*, *aguru*, and *kuṅkuma* (camphor, sandal, aloe and saffron) is recommended to be used against the ill-effects of the heat in the early summer (*tâpa* and *vasanta*) and ibidem, verse 14 [2], paste of saffron and fumes of aloe are recommended in the winter (*śîta-kâla*). In Part II, v. 298, *kuṅkuma* is called *varṇa-kâraṇa* 'colour-producing,' and is there mentioned, together with *aguru*, as ingredients of the highly valued Amṛita oil.

[15] *Valabhi* is a kind of pavilion, temporarily erected on the roof of a gateway or house, at the time of any special ceremony; well-known in India.

[16] *Kaṇḍ-âḍhya* is said, in the medical dictionaries, to be a kind of vegetable (*śâka*) with large bulbs (*mahâkaṇḍa*), also called *Dhârṇâ* (probably a kind of Arum). Here, however, the term seems to be merely descriptive of the garlands of garlic.

[17] *Svalpôdaṇḍâ* is puzzling; I take it to stand for *svalpôpamâ* 'admitting of little comparison,' 'incomparable.' But possibly it is a false reading or some vernacular name.

[18] With this compare the formula in AH., VI, 30, verses 116—125 [abc].

[19] On this and other measures see Colebrooke's Essays, Vol. II, p. 533 ff. A *kuḍava* is said to be a cubic measure of either 3½ or 4 fingers (*aṅgula*), holding 2 double handfuls (*prasṛiti*, a quantity held in the hollow of both hands by a man of common size). Four *kuḍava* make one *prastha*, 4 *prastha* make one *âḍhaka* and 4 *âḍhaka* make one *droṇa* or *kalaśa*; accordingly 64 *kuḍava* = 16 *prastha* = 1 *kalaśa*. A *kuḍava* holds 4 *pala*, a *pala* being a 'handful' (*muṣṭi*) or half a *prasṛiti*, or 2 *pala* = 1 *prasṛiti*. As measures of weight 7 *guṇjaphala* = 1 *maṣa*, 4 *maṣa* = 1 *tâṇa*, 2 *tâṇa* = 1 *tôlaka*, 2 *tôlaka* (or *tôlâ*) = 1 *karsha*, 4 *karsha* = 1 *pala*, 8 *pala* = 1 *kuḍava* (or *sêr*), 2 *kuḍava* = 1 *prastha*, 4 *prastha* = 1 *âḍhaka*, 4 *âḍhaka* = 1 *droṇa*. See Mat. Med., p. 8. The *karsha* is also called *vidâla-pada* or *mâṣôḍara-pada*; see Part II, vv. 69, 90; compare Chakradatta, formula 19 and its commentary, pp. 155, 156. For further information, see Part II, note 9.

[20] Original *guṇḍûsha*, a term used with gargles; see Mat. Med., p. 18.

[21] *Sneha* 'oleaginous substance' is said to include the following: *taila* or oil, *ghṛita* or clarified butter, *vasâ* or fat, and *majjâ* or marrow. See Ch., I, 13 [8] (v. 11), AS., I, 35 [7] (l. 4), AH., I, 10 (v. 2).

(25) He may drink mârdvika, or madhu, or madirâ and madhu in equal parts, or arishṭa, or śîdhu, or jagala, or agaja, or mairêya[22], or whatever other strong liquor there may be; but he should drink these with water, or one at a time, lest there be intoxication. (26) If he is not used to drinking liquors, he may drink warm water or sour kâñchika; or he may drink tushôdaka or suviraja[23], or fresh whey. (27) He should never take it with treacle, nor should he ever drink unboiled water, while using this prescription; he should always beware of indigestion, nor should he take it *only* for a few days.

(28 & 29.) Now *the second formula*[24]: Having crushed good, tender bulbs *of garlic*, and, together with an equal quantity of clarified butter, stirred them well with a ladle in a vessel used for clarified butter, (29) one should eat *this preparation* in the early morning for ten days or longer[25], together with an equal quantity of bel-fruit (*Aegle marmelos*); and when it is digested, one should observe the diet prescribed in the case of the use of the juice.[26]

(30.) The two ways of using it, above set forth by me, are the principal. If any one is not willing to make use of either, let him hear from me other ways of using it.

(31.) *The third formula.* After cleaning bulbs *of garlic* till they are as bright as a conch shell, they may be eaten with flour of parched grain, kulmâsa and chukra[27], well cooked with clarified butter and oil, after the manner of meat and porridge, made of Mudga (*Phaseolus Mungo*) or powdered *drugs*, accompanied with green vegetables, well seasoned with some spices[28] and sonchal salt. Or *they may be eaten* prepared in many other ways. Or other[29] *parts may be taken, as follows:*

(32.) *The fourth formula.* Having boiled their stalks with meat, one may give this savoury broth to drink, after straining it *through a piece of cloth*; or one may give him milk similarly prepared, or a pottage of pulses mixed with them.[30]

(33.) Now *the fifth formula*: garlic together with oil and śukta[27], placed in a quantity of barley, should be plastered round with clay and allowed to stand for a year; a person partaking of this will get rid of diseases even (if of long standing).

(34.) *The sixth.* After a cow has been kept for three nights without grass, she may be supplied with garlic stalks together with twice as much of grass.

[22] These are various kinds of spirituous liquors. For details see Mat. Med., pp. 13, 266, 272, 273, also S., I. 45 (transl., pp. 239-243). The only variety that I cannot identify is *agaja*. In the dictionaries it is said to be 'bitumen.' Perhaps it is a false reading. *Mairêya* is said to be a mixture of *sura* (any spirituous liquor) and *dhava* (see Part II, note 52).

[23] The *suvîraja* of the text is probably the same as what is called *sauvîraka* in S. I. 45. All three drinks are kinds of sour gruel, produced by the acetous fermentation of a decoction of different sorts of unhusked grain; *tushôdaka* or *tushâmbu* is made with the husks of a kind of pulse, *suvîraja* or *sauvîraka*, with unhusked barley, and *kâñchika* or *kâñjika* or *dhânyâmla* with unhusked rice. On their preparation see S., I. 44 (transl., pp. 209, 210, 246); also Mat. Med., p. 12.

[24] With this compare the formula in the AH., VI, 39, verse 126[ab]; AS., VI. 49[ab] (I. 14). V., XXII[ab] (v. 18). Verses 29-33a, according to Dr. Cordier, occur also in KS., XI, vv. 123-126.

[25] A similar direction as to the length of time occurs below, in verse 37.

[26] The *rasa* or 'juice' is that prescribed in verses 20-27.

[27] *Kulmâsa* and *chukra* or *śukta* are two kinds of sour gruel. As to the latter, see Mat. Med., p. 12, and Med. Dict., s. v. See also note 23 above.

[28] *Gandha* or 'spices' are generally enumerated in a set of three (*tri-jâtaka*) or of four (*chatur-jâtaka*). The former set comprises cinnamon bark (*tvach*), cinnamon leaves (*patra*) and cardamoms (*êlâ*). The latter adds *Nâgakêsara* or Mesua ferrea. See BhP., I, 1[109], M., p. 10, and Mat. Med., pp. 119, 224.

[29] The construction is rather rugged. I supply *nâgalâ* to *itarâṇi, i.e.*, besides the bulbs, 'other parts' of garlic may be used, such as the stalks mentioned in the following verse.

[30] *i.e.*, the stalks may be boiled with meat or with milk or with pulses, and then given to drink after straining the mixture.

Third Leaf: Obverse.

Any Brâhman may then use her milk, curds, and clarified butter, or also the buttermilk, and, thereby overcoming all sorts of diseases, he will enjoy happiness.[31]

(35 and 36.) *The seventh.* Thirty-two prasthas[19] of the juice of garlic, one quarter as much of yeast, one prastha of oil free from all impurity, and six *prasthas* of paste *of garlic* should be taken. After boiling *these* a wise physician will further add one well-cooled kalaśa[20] of Mêshaśringî (*Asclepias geminata*) and once more throw in two prasthas of paste *of garlic*. (36) This liquor will after five times five days become ready endowed with taste, colour and aroma; as an oil indeed it is excellent and most effective. If a person uses it diligently, whether as an oil or as a liquor, the hosts of diseases avoid him, just as in a fight armed people are avoided by others.

(37.) *The eighth.* Having crushed one prastha of cleaned garlic, one should mix it with half a pala[18] of powder of the three myrobalans[12], and a kuḍava[19] of clarified butter and oil. This is recommended *to be taken* for ten days early in the morning as a remedial paste[32] against cough and asthma.

(38 and 39.) Joined with remedies against air, *garlic* cures abdominal tumours caused by the air-humour: and if joined with Khadira (*Acacia catechu*), it at once cures black leprosy. Mixed with Hayagandhâ (*Physalis flexuosa*), it is a remedy against cough and asthma; and mixed with liquorice, it is declared to be good for the voice. (39) It cures various kinds of diseases, when joined with various kinds of substances. There is no sort of *dietary* restriction in the administration of it, so that it may be used by people who are fond of ease.

(40—42.) Hear from me with an attentive mind, O Suśruta, as I set forth briefly its virtues, when applied as an alterative tonic. (41) It cures black leprosy, loss of appetite, abdominal tumours, cough, leanness, white leprosy, and weak digestion. It removes rheumatism, menorrhagia, abdominal pains, consumption, morbid affections of the bowels, enlargement of the spleen, and hæmorrhoids. It banishes hemiplegia, lumbago, worms, iliac passion, and urinary disorders. It cures lassitude, cold in the head, rheumatism in the arms or back, and epilepsy. (42) Venerable Sir, with a voice beautiful like that of a tabor or flute, with *a complexion* clear as molten fine gold, strong in memory and mind, with a well-knit body free from all wrinkles, etc., with all the senses steady, collected and constantly increasing in vigour, you shall live for a hundred years, with a well-regulated digestion and inexhaustible virility.

[31] The solution of the puzzle of this mutilated formula I owe to Kaviráj Binod Bihari Gupta. The object is to enable a Brâhman, who is forbidden the use of garlic, to make use of it by passing it through a cow. After keeping her fasting for three days, she is to be given fodder consisting of two parts of grass and one part of garlic. Her milk, thus impregnated with the essence of garlic, may then be used by the Brâhman. *Asatrind*, I take to be *triṇa* with a double negative.—*Smarahsnâ* I take to be a blunder for *tarunsi*.

[32] *i.e.* the chebulic, the emblic and the belleric. See Mat. Med., p. 161.

[33] The reading *viśaṅk*, or *biśaṅ*, though quite clear, is not intelligible, and is probably corrupt; for the verse scans incorrectly; see note 44, on p. 4. *Biśaṅk* (neut.) is a kind of salt and *biśaṅ* (masc.) is said to be the aggregate of ingredients (*saṁsarga*) used in calcining or oxydising (*jâraṇa*) mercury; see Med. Dict., *s.* v.; but neither fits the context. If the reading is correct, *biśe* may be suggested to mean a kind of paste, and to be short for *biśêlinka* which is a paste applied to the eyelids; see Mat. Med., p. 18.

Third Leaf: Reverse.

(43.) Thus far the administration of garlic has been explained by me, even as it was taught by the sages of old, ... and one should accurately observe it .....

(44—46.) Food, digestion, the normal condition of the elements, health, plumpness, spirits, energy and *long* life are *all* dependent on the digestive faculty. (45.) The digestive faculty is set in activity through food; and the resultants of digestion are the elements; health depends on the normal condition of the elements; plumpness on health; (46.) good spirits and energy on plumpness; and through all these the life of living beings is prolonged. Hence one should first of all examine *the state of* the digestive faculty.[34]

(47—49.) [35] When *the digestive faculty* is such as to produce the normal condition of the elements, it is said to be (normal or) regular, and this is justly considered its best state. When the digestion is (abnormal or) irregular, one should drink the Dâdhika or the Havushâdika clarified butter[36]; (48) greasy and warm bougies[37] also are useful; afterwards food and drink *may be taken*. When the digestion is weak, one should fast at first, and afterwards use medicines to promote appetite and assist digestion[38]; (49) also the use of liquors medicated with powders[39] is advantageous as removing derangements of the bile and phlegm. When the digestion is regular, the physicians should prescribe whatever is agreeable to the system.[40]

Further it may be observed:—

(50 and 51.) When the digestion is weak or too active, a person dies, unless he receives proper treatment; when it is irregular, *he contracts* all sorts of diseases; when it is regular, he lives long in comfort. (51) Hence a wise physician will at all times in all diseases *first* direct his treatment to the proper regulation of the digestive faculty, afterwards *paying attention* to the relief of the sickness.

(52—54.) He who desires a good memory, health and strength, and wishes for a long life, should make use of the fresh juice[41] of the Sankhapushpî (*Canscora decussata*), Brâhmî Manḍûkaparṇî (*Hydrocotyle asiatica*)[42] and liquorice. (53)

[34] Compare with this the opening statements in S. I. 35 and 46.—According to Ch., I. 28[274] (§ 3), S., I. 15[42] (§ 6), the *dhâtu* or 'elements' of the body are seven: *rasa* 'chyle,' *rakta* 'blood,' *mâṁsa* 'flesh,' *medas* 'fat,' *asthi* 'bone,' *majjâ* 'marrow,' and *śukra* 'semen.'—The resultants of nutrition and digestion are divided into two classes; *viz.*, *prasâda*, good, useful, and *mala*, waste. The former are the *dhâtu-s*; see Ch., IV, 6[287] (§ 19).—*Sâmya* or 'equilibrium' is the exact quantity of each element required to constitute a healthy body.

[35] With verses 47-51 should be compared the statements in S., I. 35[130] (§ 20-22). There four kinds of digestion are enumerated: regular, irregular, weak and too active. These four kinds are referred to in our verse 50. But verses 47-49 mention also a different classification into two kinds only: regular and irregular.

[36] On these two preparations of clarified butter see Arupadatta's comment on verse 52*a* in AH., IV, 4, where both are mentioned. The *Dâdhika* is prescribed for *gulma* in S., VI, 42[804] (vv. 28, 29), AS., IV, 16[30] (ll. 2-10), and the *Havushâdika*, for the same in Ch., VI, 5[439] (vv. 67-69); SY., XXX, 40-43[304], AH., IV, 14 (vv. 106-13*a*). Another *Havushâdika* clarified butter is prescribed for *Udara* in Ch., VI, 18[842] (vv. 120—135), AH., IV, 15 (vv. 22-25).

[37] Instead of *vartayas* 'bougies' probably *vastayas* 'enemas' should be read. For irregular digestion is said to be due to deranged air (*vâyu*, see S. I, 35[130]); and for this, according to present Indian medical-practice, enemas are commonly used, but never bougies.

[38] On *pâchana* and *dîpana* see Mat. Med., p. 5.

[39] On *ariṣhṭa* or 'medicated liquors' see Mat. Med., p. 13. Two formulas for a *châturbhâdrika* or 'liquor medicated with a powder' will be found in Part II, verses 67-70 and 104-107.

[40] On *sâtmya* see S. I, 35, verse 35[132].

[41] On *svarasa* 'fresh juice' see Mat. Med., p. 9. AH., V., 6 (vv. 95, 100).

[42] *Brâhmî-manḍûkaparṇî* appears to be the compound name of a single plant; see Phar. Ind., II, 107, III, 8. A practically identical formula occurs in AS., VI, 49[238] (l. 8), AH., VI, 39 (v. 44) where the simple name *Manḍûkaparṇî* is used.

Within one month he will obtain a good memory, and within six months he will be able to reproduce from memory whatever he hears once only, without any decay. By using it for one year he will live for a thousand years; or for two hundred years, if administered in proportion; (54) and if he goes on continually repeating the treatment, he will enjoy undecaying life.

(55—59.) In the case of [43]gruels, medicated buttermilk, and porridge; of electuaries, powders, and antidotes; of pills, ointments, suppositories, medicated liquors, fumes and sternutatories; (56) of roasted drugs, emollients, sudorifics, emetics and eye-lotions; (57) and in the case of any other medicaments, not named, when the proportion is not mentioned, the portions of the ingredients should be equal; of honey and clarified butter, there should be a double portion; (58) but of treacle one should take a three-fold, and of powdered white sugar a four-fold portion. In the case of pulverized drugs, when no liquid is prescribed, water should be understood *to be taken*. (59) In the case of curdled milk, urine, milk, clarified butter, hair, horn and hoof, one should prescribe all these to be taken from the cow; so also from among honeys, that of the common bee should be taken.[44]

(60.) With the rind of pomegranate one should boil mustard oil: *rubbing with* this causes the enlargement of the ears, and of the labia pudendi and the penis.[45]

(61—67.) Boil half a pala[19] of the root of Chitraka (*Plumbago zeylanica*), likewise of Trivṛit (*Ipomœa turpethum*), and Sâtalâ (*Stereospermum suaveolens*), and one karsha[19] each of the roots of Danti (*Baliospermum montanum*) and ....., (62) and likewise of long pepper, rock salt, asafœtida and Indian sorrel, and twenty of the best chebulic myrobalans,.....

Fourth Leaf: Obverse.

(63) From these carefully prepare ten boluses with eight pala[19] of treacle, and take one of them on every tenth day. (64) After it one should drink warm water for the purpose of correcting the disorders of the humours; then after the purgative has taken effect, one should bathe and may then return to one's ordinary diet.[46] (65) There should never be any hesitation with regard to this remedy, either in word or deed or thought. It is a purgative composed by Agasti, fit for princes, and which can be used in all seasons. (66) It prevents old age and death; it cures all diseases; it also acts

[43] On these medicaments see Mat. Med., p. 91 ff. *Khaḍa* is said to be buttermilk boiled with acid vegetables and spices. —*Âsu* I take to be the same as *âsava* or 'medicated liquor'; see Part II, note 52. For a *pañchâśâka* vegetable drugs are made into a paste, and tied up in the form of a ball in leaves of the *Eugenia jambolana* or *Ficus Bengalensis*, after which the ball is covered with a layer of clay and roasted in a cowdung fire. When the clay becomes brick-red, the roasting is completed. The roasted drug is now taken out, and given either in the form of a pill or powder or its juice is expressed and given with honey or other adjuncts.—*Tarpana* are of two kinds: a soothing medicine, or emollient, for external, and a refreshing drink or sherbet for internal application. The former is mentioned also in v. 87, note 66. For the latter, see Part II, vv. 406, 600.—On *pânîya*, see Part II, note 40 to v. 45.

[44] The meaning is, that the products from the cow and the common bee should be understood to be prescribed, whenever no other animal is specifically named. See S., IV, 31[119] (§ 9), Ch., I, 13[57].

[45] Compare with this the first formula in Chd., LXXI, 14[708] on Aphrodisiacs (*vṛishya*). It only adds, as two further ingredients, marking-nut (Bhallâtaka, *Semecarpus anacardium*) and fruit of the Indian nightshade (Vṛihatî, *Solanum Indicum*).—The oil of the *Brassica juncea*, the Indian mustard, is largely used by Indians as an article of food as well as an unguent and is known as *kaḍwâ* or *karwâ tél*, 'pungent oil,' as distinguished from *mîṭhâ tél*, the 'sweet oil' of the *Sesamum indicum*.

[46] Compare with this the formula given in Ch., VII, 12[66], S., I, 44, verses 50, 51[105], A8., V, 2[108] (l. 18), AH., V, 2 (vv. 58—60) V., LXXII, 41, 42[103], called *Gaṇḍîrya mâdaka* in the latter. There are fewer ingredients and the proportions are different, but the chief ingredients are the same (viz., 1 pala each of Danti and Chitraka, 1 karsha each of Pippali and Trivṛit, and 20 myrobalans); they are also to be made up in boluses of 8 pala of treacle, and one bolus to be taken every tenth day, with warm water after it.

as an aphrodisiac and alterative tonic, and increases memory and health. (67) It should never be administered to any one who has no son nor disciple; nor should it be given to an enemy of the king, nor to any other sinful liver.

(68—70.) [47]Both Panchamûla (the five roots)[48], liquorice, Guḍûchî (*Tinospora cordifolia*), Râsnâ (*Vanda Roxburghii*), Aśvagandhâ (*Withania somnifera*), Amaradâru (*Pinus deodara*), Pâṭhâ (*Stephania hernandifolia*), bark of cinnamon, the two Balâ[49], Tagara (*Tabernaemontana coronaria*), and seeds of sesamum, Mûrvâ (*Sanseviera zeylanica*), Kulattha (*Dolichos biflorus*), Indian spikenard and Ghana (*Cyperus rotundus*), (69) Punarnavâ (*Boerhaavia diffusa*), and seeds and manna of bamboo[50] Jîvanti (*Coelogyne ovalis*), also cardamom, aloe-wood, and Jîvaka[51], root of the castor-oil plant together with its nuts and sprouts, flowers of Kuraṇḍa[52] (*Corchorus antichorus*) and ginger: (70) two or three of these *drugs* should be boiled in the milk of goats or cows or sheep mixed with water, and then, with the addition of a little rock-salt, the mixture may, in a tepid state, be applied as a lotion in eye-diseases caused by the air-humour.

(71—73.) [53]Indian barberry, blue lotus, Padmaka (*Prunus puddum*), Tunga[3] (*Calophyllum inophyllum*), Yâshâ[54] (*Alhagi maurorum*) Méda,[55] leaf-stalk of the

[47] This and the three following formulas are optional. Any two or three of the ingredients named in them may be selected to make up a prescription. In this optional form the formulas are not found in any other existing medical work, but the latter give numerous prescriptions made up with the drugs, though, as a rule, the formulas are made up with more than two or three of them. One, however, made up with only two (*viz.*, Indian Barberry and *Prapauṇḍarîka*), occurs in the AH., VI. 16, verse 33 [end]; another (with I. root, rind and shoots of the castor-oil plant, and 2, *Kaṇṭakâri* in S., VI, 9, v. 8 [79]; Chd., LXII, 19 [80]; Śâ., III, 13, v. 24 [81]. Others, made with three, occur in V., LXVI, 32 [78], (flower of *Kuraṇḍa*, liquorice and ginger, or *Lôdhra*, liquorice and ginger), and Ch., VI, 26 [76] (v. 236), AH., VI, 16, v. 25 [84] (*Prapauṇḍarîka*, liquorice, Indian barberry). It may be noted that the ingredients in two of these prescriptions are selected irrespective of the directions in our formulas. As a rule, the particularised prescriptions contain four or more ingredients; but often two or three among them are selected from those named in our formulas, thus in Ch., VI, 26 [76] (v. 238), we have a prescription of four ingredients, of which three (*Vâsâ*, *Prapauṇḍarîka* and *Dâruî*) are from our formulas, while the fourth (*Kâlânusârinî*) is a new addition. Similarly in S., VI, 11, v. 5 [82], there are four ingredients (the three seridia, the three myrobalans, turmeric and *Vidaṅga*), of which the three first begin our verse 74, while the fourth is new. See also note 53.

[48] On these *pañcha-mûla* or "five roots" see Mat. Med., pp. 145, 146, BhP., I, 1 [28], [29], M., page 247. They are distinguished as the lesser (*kraśva* or *laghu*) and the greater (*vrihat*). The former comprise the *Śâlaparṇî* (Desmodium gangeticum), *Pṛiśniparṇî* (Uraria lagopodioides), *Kaṇṭakâri* (Solanum Jacquinii), *Vṛihatî* or *Vârttâkî* (Solanum indicum) and *Gôkshura* (Tribulus terrestris). The latter include the *Vilva* (Aegle marmelos), *Syôṇâka* (Calosanthes indica), *Gambhârî* or *Bhadrâ* (Gmelina arborea), *Pâṭalâ* (Stereospermum suaveolens), and *Gaṇikârikâ* (Premna spinosa). Both sets are together known as the *daśa-mûla* or "the ten roots" or *dvi-pañcha-mûlî*. The enumeration, however, occasionally varies. Thus in Part II, v. 627, *Rôhinî* (Vanda Roxburghii) and *Rôhiṇikâ* (Cassia Fistula, or Euphorbia neriifolia) take the place of *Vilva* and *Gôkshura*, respectively. The usual enumeration occurs in Part II, v. 188. In Ch., VIII, 10 [78] (v. 17), we find *Varâhamûsaka* (=*Eraṇḍa*, Ricinus Communis) in the place of *Gôkshura*.

[49] This is the *Śîda*, of which, however, the Mat. Med., p. 120, mentions four kinds: cordifolia, rhomboides, rhombifolia, and alba. The Med. Dict., and the Phar. Ind., I, 206, have five kinds (*pañcha-bala*). The two *Balâ* here referred to are the *Balâ* or Śida cordifolia and the *Atibalâ* or Śida rhombifolia, also called *Bala-śvetyâ*. See Dallana Mishra's commentary on the 5th list in S., I, 39.

[50] *Vênu-phala* is no doubt the same as *Vênu-ja*, or *Vênu-yava*, or *Vênu-lôja*, seeds of bamboo, Mat. Med., p. 268; and *Vênu-tvacha* I would suggest to be manna of bamboo, *tvacha* being short for *tvak-kshîra*. No native practitioner, consulted by me, could explain the phrase; and the reading may be corrupt.

[51] *Jîvaka* is one of the drugs which formed part of the group known to the ancients (Charaka and others) as the *ashṭa-varga* or "group of eight drugs." It comprised the following: 1, *Jîvaka*, and 2, *Rishabha*, 3, *Mêdâ*, and 4, *Mahâmêdâ*, 5, *Kâkôlî*, and 6, *Kshîra-kâkôlî*, 7, *Riddhi*, and 8, *Vriddhi*. Their identity is no more known at the present day, and the following substitutes are prescribed: the roots of *Vidâri* (Batatas paniculata) for Nos. 1 and 2, the roots of *Śatâvarî* (Asparagis racemosus) for Nos. 3 and 4; the roots of *Aśvagandhâ* (Withania somnifera) for Nos. 5 and 6, and the tubers of the *Varâhî* (or *Bhadramusta*, Cyperus pertenuis for Nos. 7 and 8. See BhP., I, 1 [29], [32].

[52] See Watt, Part V, p. 97. It is the same as *Saharuṇḍa* or *Śâkuruṇḍa*, a plant of doubtful identity.

[53] Compare with this the formula in the Chd., LXII, 17 [82] V., LXVI, 77 [78] on eye-diseases due to bile, and Chd., LXII 28 [83] V., LXVI, 107 [78] on eye-diseases due to blood-congestion. The latter contains seven drugs, all mentioned in our formula, the former, five drugs, three of which are given here.

[54] On *Mêdâ* see note 51.—*Yâshâ* I take to be the same as *Yâsa* or *Yavâsa*.—*Tuṅga* is the same as *Punnâga*, and *Latâ* is the *Sydna-latâ* and the same as *Sârivâ* or *Anantamûla*.—*Prapauṇḍarîka* is said to be a fragrant wood resembling the *Padma-kâshṭha* or *Padmaka*.—The text reads ed *pushparatâm*.

lotus, liquorice, Samangâ (*Mimosa pudica*), yellow sandal, Parpaṭaka (*Oldenlandia corymbosa*) and Latâ (*Ichnocarpus frutescens*), also raisins, Kâshmarya (*Gmelina arborea*), and Parûshaka (*Grewia asiatica*), (72) roots of Gundrâ (*Panicum uliginosum*), of Naḍa (*Phragmites Karka*) and of Vétasa (*Calamus rotang*), and buds of flowering grasses, Prapauṇḍarika[54] and Kirâtatikta (*Ophelia chirata*), white sandal, Nimba (*Azadirachta indica*), Paṭôla (*Trichosanthes dioica*), Vâsâ (*Adhatoda vasica*): (73) two or three *of these* may be boiled in the milk of a goat or a woman, and then with the addition of sugar and honey, will make a very good lotion in eye-diseases caused by bile and congestion of blood.

(74—76*a*.) The three acrids[55], the three myrobalans[55], turmeric, sulphate of iron, nutmeg, soot[56], jasmine, also lac, Danti (*Baliospermum montanum*), Surasa (*Ocimum sanctum*) and Vachâ (*Acorus calamus*), Pâṭhâ (*Stephania hernandifolia*), Aśvagandhâ (*Withania somnifera*), best Amaradâru (*Pinus deodara*), (75) also Kaṭphala (*Myrica sapida*), cardamoms, aloe-wood, Kaṇṭakârî (*Solanum xanthocarpum*), Rôdhra (*Symplocos racemosa*), Karañja (*Pongamia glabra*), Vṛihati (*Solanum indicum*), Śvadaṁshṭrâ (*Tribulus terrestris*): two or three of these may be boiled in water, and when cooled down to moderate warmth, (76*a*) they may be used, mixed with rock-salt and honey, as a lotion in eye-diseases caused by phlegm: so the sages declare.

(76*b*—78*a*.) With Parûshaka (*Grewia asiatica*), the acid fruit of the hog-plum and tamarind trees[57], rose-apple, mango, wood-apple, jujube, (77) together with citron or the acid juice of pomegranate, or with some liquor or with milk or with curdled milk or whey, also with Indian barberry, blue lotus and the other *above mentioned drugs*,[58] boiled with sour substances, and mixed with some rock-salt, a lotion *is made* for the eyes, (78*a*) which will thoroughly cure any disease of the eyes due to congestion of the blood produced by excessive heat or cold.

(78*b*—79*a*.) Having ascertained whether an *eye*-disease is due to the deficiency or the excess of two humours or all three humours concurrently[59], (79*a*) an intelligent physician should determine *his line of treatment*.

Fourth Leaf: Reverse.

(79*b*—80*a*.) [60]The tender roots of the castor-oil plant with its nuts and sprouts, added to the milk of goats, (80*a*.) make an excellent lotion which cures *any eye-disease caused by vitiated* air and blood: so good physicians declare.

(80*b*—81*a*.) [61]Prapauṇḍarika[54], liquorice, turmeric ……, (81*a*) mixed with sugar, make a lotion which stops any *eye*-disease due to *disordered* bile and air.

[54] Also called *trý-ûshaṇa* or *tri-kaṭu*: they are ginger, black pepper and long pepper. See Mat. Med., p. 253.

[55] *Gṛiha-dhûma*, lit. 'house-smoke,' is *soot*. The Petersburg and other Sanskrit dictionaries make it to be the name of a plant, I do not know on what authority. In S., V, I, v. 50 [56] it is said to be *dîpâma dgâer-smâkaroḥ, i.e.*, 'smoke produced in a house,' that is, the soot deposited in the cobwebs over the hearth or fireplace of a house. It is a substance often prescribed by Kavirâja. In Bangâlî it is called *jhûl*, and in Sanskrit commentaries it is generally rendered by *alandhûka, e.g.*, in Chl., LXVII, 7 [56], comm. *gṛihadhûmasya alandhukaḥ*. The latter is a wrong form of the Sanskrit *alandhûma*, 'thick smoke' or soot.

[57] *Vṛikṣh-âmla* is said to be a synonym of both *Âmrâtaka* (hog-plum) and *Tintiḍîka* (tamarind). Accordingly I take it here to be a descriptive term in composition with the latter two names, similar to the compound term *Dâḍim-âmla*.

[58] *I.e.*, the drugs mentioned in the formula of vv. 71-73.

[59] *Sarva-sannipâta* is the same as *sannipâta*. On this and on *samsarga* see AH., I, v. 12 [2].

[60] Compare with this the formula in AH., VI, 16, v. 10 [13]. *Vṛiṇajara* is in the smaller Petersburg Dictionary said to mean, "marsch," "mürbe" (rotten, decaying), but it is rather the opposite of *jarjara*, 'old', 'decayed,' and therefore means 'young' or 'tender' or *taruṇa*, as in the corresponding formula of the Aṣhṭâṅga Hṛidaya, and below in v. 85*b*.

[61] This seems to be the same as the formula in the Chl., LXII, 17 [56]. The latter adds emblic myrobalan and *Padmâka* which may have stood in the missing portion of our manuscript. But compare also S., VI, 12, v. 46 [56].

(81*b*—82*a*.) [82]Nata (*Tabernaemontana coronaria*), Śvadaṁshṭra (*Tribulus terrestris*), bark of Vṛihatī (*Solanum indicum*), and Hrivêra (*Pavonia odorata*): these boiled in goat's (82*a*) milk and water, and mixed with rock-salt, make a lotion which cures any *eye-disease due to disordered* air and phlegm.

(82*b*—83*a*.) ..... Indian barberry and best liquorice, boiled in the milk of a cow or a woman, (83*a*) and mixed with sugar, may be applied by a good physician as a lotion in *any eye-disease due to disordered* air, blood and bile.

(83*b*—84*a*.) [83]The three myrobalans[32], finely pulverised and tied up in a piece of white linen, (84*a*) and soaked in milk of a goat or a woman or in water, are a remedy in all *eye*-diseases.

(84*b*—85*a*.) [84]Indian barberry, turmeric, the three myrobalans,[32] Musta (*Cyperus rotundus*), mixed with sugar and honey, (85*a*.) and done up with human milk, make a lotion which is said to be a capital remedy for diseases due to *disorders of the* bile, blood and air.

(85*b*—86*a*.) [85]Together with young roots and leaves of the castor-oil plant, as well as with paste of Shashṭika rice, (86*a*) Śavaraka (*Symplocos racemosa*), steeped in clarified butter, and rubbed on according to the direction in the preceding formula, is a remedy against all *eye*-diseases.

(87.) With the same drugs as are prescribed for the lotions, a physician should prepare sudorifics, puṭapâkas,[33] errhines, emollients[34], potations of clarified butter, plasters and washes[35].

(88.) [87]Plasters on the face are recommended for removing moles, freckles and black spots, brought on by disorders due to the seasons,[87a] and for reducing poisonous swellings.

(89—92.) (I) The bark of the *five* trees with a milky sap[36], also sandal and Padmaka (*Prunus puddum*), Gundrà (*Panicum uliginosum*), leaf-stalk of the lotus, also

[82] With this compare the formula in S., VI, 9, v. 10 [67] and AH., VI, 16, v. 12 [43], where only *Mañjishṭhâ* or *Śârṅgâshṭâ* and *Udumbara* are substituted for *Śvadaṁshṭrâ* and *Vṛihatî*.

[83] Substantially the same with this is the short formula in Śâ., III, 13, v. 186 [107], which also comprises only one drug (the three myrobalans) and is also said to be good for all eye-diseases. In Vangasena it is broken up into two distinct formulas; one in LXVI, v. 965 [7-8], consisting of the single drug of the three myrobalans, corresponds to the first portion of our verse 83*b*, the other, in LXVII, v. 120 [32], corresponds to the rest of our formula and mentions the tying up in white linen, and that it is good for all eye-diseases, but it substitutes Lôdhra (*Symplocos racemosa*) for the three myrobalans, and clarified butter, rock-salt and sour gruel for milk and water. The latter formula is also given in Chd., LXII, 24 [65], the former in LVII, 4 [60]. See also AH., VI, 16, vv. 5 [40], 16 [43], 32*b* [48], and Śâ., III, 13, v. 11 [58].

[84] Substantially the same with this is the formula in Chd., LXII, 42 [68]; it only substitutes *abhighât-âkshiśûla* 'eye injured by a stroke' for 'bile, blood and air.' The second half of our formula, in v. 85*a*, is found, word for word, in SY., LXI, 20 [68], Chd., LXII, 195 [68], and V., LXVI, 7*b* [70], where, however, it is appended to another prescription; see note 65.

[85] There are numerous formulas, more or less like the present one, in all of which *Saṁvarika* (or white *Lôdhra*, S., I, 38, v. 11 [19], Bhp., I, 1 [57]) forms the principal ingredient. See, *e.g.*, Ch., VI, 26 [76] (v. 226), Chd., LXII, 9 [65], V., LXVI, v. 56 [76], v. 96 [78], AH., VI, 16, v. 4 [42]. Compare also AH., VI, 16 v. 10 [45]. The nearest parallel, however, is the formula in Chd., LXII, 19 [68], V., LXVI, v. 78 [76], which only substitutes the leaves of *Nimva* (Azadirachta Indica) for those of the castor-oil plant, and adds "the direction in the preceding formula" (*i.e.*, that in verse 85*a*) in full.

[86] Compare with this the enumeration of eye-remedies in the S., VI, 9, v. 1-3 [67], V., LXVI, v. 30, 31 [76]. Chd., LXII, 1 [65] (with Śiva Dâsa Sêna's commentary), and Śâ., III, 13, v. 1 [94]; also AH., VI, 16, v. 59 [48] and V., LXVI, v. 87 [76].—*Âkshôtana* is a lotion which is applied to the eye in drops, from eight to twelve, dropped with two fingers; *tarpana* or 'emollient' consists in filling the eye with clean clarified butter, in a liquid and tepid state; see on both Śâ., III, 13, vv. 12, 13 [94], Chd., LXXXI, 1 [78]. *Nêtrana* or 'errhine' is a synonym of *nasya*; see Śâ., III, 8, v. 1 [77] and note 77. On *puṭapâka* see note 43.

[87] With this compare AH., I, 22, v. 14*a* [61] and Śâ., III, 13, v. 1 [92], where face-plasters are said to be remedies against vitiated humours and poisons, and beneficial for the complexion. The sequel in Śârṅgadhara (vv. 3-8) shows that by "poisons" are meant swellings (*śôtha*) or eruptions (*visarpa*, etc.), caused by irritant poisons (such as the *brushkara* or 'marking-nut'). See also verse 100 and note 77.

[87a] The phrase is rather awkward to construe. I take *kâla* to mean 'set up', 'induced.' The usual meaning 'suitable' does not suit. It may be a corrupt reading.—*Rita-vyâdhi* might also mean disorders connected with menstruation.

[88] The five trees with a milky sap are the following: *Nyagrôdha* (Ficus bengalensis), *Udumbara* (Ficus glomerata), *Aśoattha* (Ficus religiosa), *Plaksha* (Ficus Tjakela), and *Pârisha* (Thespesia populnea). For the latter some substitute the *Śirîsha* (Albizzia Lebbek) or the *Vêtasa* (Calamus

Ghana (*Cyperus rotundus*), and Vâlaka (*Pavonia odorata*); (II) roots of Kuśa grass (*Poa cynosuroides*), Tagara (*Tabernaemontana coronaria*), Elavâlu (*Gisekia pharnaceoides*)[70], leaves of Tâlîsa (*Taxus baccata*), Indian spikenard, and sesamum seeds; (90) (III) Masûra (*Vicia lens*), Durvâ (*Cynodon dactylon*), Âmayava (uncooked barley), leaf-stalk of the lotus, and juice of liquorice and lotus; (IV) Śailêya (*Parmelia perlata*),[71] Musta (*Cyperus rotundus*), aloe-wood, and Jhâmaka[72], Sthauṇêyaka[73], cardamoms, Tagara (*Tabernaemontana coronaria*), and sesamum seeds; (91) (V) bark and leaves of cinnamon, Kushṭha (*Saussurea Lappa*), aloe-wood and Jhâmaka[72], Mâṁsî (*Nardostachys jatamamsi*), Harêṇu (*Piper aurantiacum*), and Pari-pêlava (a kind of *Cyperus rotundus*); (VI) liquorice, Rôdhra (*Symplocos racemosa*), aloe-wood, and white sandal, Punarnavâ (*Boerhaavia diffusa*), seeds of black sesamum[74], and Latâ (*Ichnocarpus frutescens*): (92) with the *six* face-plasters *described* in the foregoing *six* half-verses[75] *the patient* should be treated in the summer and the other *five* seasons *of the year*. They are declared to be beneficial for the sight. Listen now to me as I explain how they remove the *disorders of the* humours of men.

(93) In the rainy season they are said to cure diseases due to *disorder of* the air-humour; in the autumn they are held to cure diseases due to *derangement of* the bile; in the summer they are held to cure diseases due to *derangement of* the blood; in the spring they are said to cure diseases due to *derangement of* the phlegm.[76]

(94 and 95.) Roots of the cotton-plant, Latâ (*Ichnocarpus frutescens*), Uśîra (*Andropogon muricatus*) yellow sandal, and the bark of *the five* trees with a milky sap,

rotang). Their bark is known by the collective name of *pañcha-valkala*. See BhP., I, 1[20]. It is called *kshîravṛiksha tvacha* in verse 94.

[70] *Elavâlu* is mentioned as *Êlavâluka* in the 6th list of S., I, 38[16], transl., p. 161, where Dallana Mishra's commentary explains it as a reddish powder (*kari-rêṇuka*), resembling that of the seeds of the *Krishṇagandhâ* (*Krishṇagandhika-phala*). The latter is a name of the horse-radish tree or *Sigru* or *Śôbhâñjana* (Moringa pterygosperma, see Mat. Med., p. 118, 207. On its identity see Phar. Ind., II, 105.

[71] On *Śailêya* see Mat. Med., pp. 16, 315, where it is identified with Parmelia perlata, a kind of lichen, growing on rocks, whence it is called *śilâ-valkâ*, or rock-bark, see Phar. Ind. III, 627, and *śaila-ja*, or rock-born, Med. Dict., s. v.

[72] *Jhâmaka* is probably the same as (*i.e.* a prâkṛitized form of) *Dhâmaka*, which is mentioned in the 11th list of S., I, 38[16], where Dallana Mishra's commentary identifies it with *Kattṛina*, popularly called *Rôhish*, cf. BhP., I, 1[20]. The latter is said to be "a fragrant grass" (Mat. Med., p. 304), but its identity appears to be unknown. Kaviraj Binod Bihari Gupta and others, however, maintain that *Rôhish* is the same as *Bhûtṛina* (Andropogon Shoenanthus); see Watt, V, 109[34]. Arunadatta, in his comment on AH., I, 15, v. 43, explains *Dhyâmaka* by *Dasadagdhaka*, which the Med. Dict. identifies with *Kattṛina*. The fact appears to be that *Kattṛina* and *Bhûtṛina* are synonyms; see Phar. Ind., III, 557.

[73] *Sthauṇêyaka* is said to be a fragrant plant, a kind of *Granthiparna* (vernacular *Geṭhôṭa*, see BhP., I, 1[20]; in the vernacular *Thanêr*. In Mat. Med., p. 298, it is said to be "a sort of gall caused by an insect on some tree." Arunadatta in his comment on AH., I, 15 (v. 43) explains it *taila-pîtaka*, whatever that may mean. Its real identity seems to be unknown.

[74] On black sesamum, see Part II, note 357.

[75] A similar set of six formulæ is given in AH., I, 23, vv. 18-21 [20]. There the series commences with a formula for the winter (*hêmanta*; in our Manuscript it begins with the formula for the summer (*gharma-grîshma*).

[76] It is curious that this passage enumerates no more than four seasons. Usually the year is divided into six seasons, and this division is clearly implied in the preceding passage (verses 89-92). The apparent reason for noticing only four seasons is the corresponding number of four *dôsha* or 'humours,' each 'humour' having one season to itself; *viz.*, rains and air, autumn and bile, summer and blood, spring and phlegm. This reason, however, does not fully account for the difficulty; for it cannot be supposed that the disturbing influence of the *dôsha* on the system is taken to be in abeyance during the two omitted seasons of *hêmanta* or 'winter' and *śiśira* or 'frost.' It would rather seem as if the whole year were here intended to be divided into four seasons, and that the two seasons which appear to be omitted are really, in some way or other, included among the four. There is a corresponding passage in S., I, 6 [20,21]. There the frost season (*śiśira*) is also omitted, while a second rainy season, called *prâvṛisha* is introduced. This practically reduces the number of seasons to five; and it may perhaps be suggested that in our Manuscript a further reduction is made to four seasons, by the extension of the autumn *forward* so as to include the winter (*hêmanta*). The only notice I remember of a year divided into four seasons occurs in Beal's Buddhist Records of the Western World, Vol. I., p. 72. There the four seasons are spring, summer, autumn, winter. If "rains" is substituted for "winter," and the series read backwards, it exactly agrees with that given in our Manuscript. Both statements, in our Manuscript and in Suśruta, commence the year with the rainy season. It may be noted, that according to Albîrûni's India (see Vol. II, p. 8, in Professor Sachau's translation, in Trübner's Oriental Series) the practice to commence the year with the rainy season prevailed in "Kaṇôr, which [2]

white sandal,.....barley-corns[77]: these are said to make plasters for the face beneficial to the complexion. (95) These *drugs* should be dried and then mixed with the urine of a cow, or with the sour juice of jujube and urine, or they may be dried and mixed with the juice of citron and with mustard (and thus applied to the face).

Fifth Leaf: Obverse.

(96.) ..... if the blood becomes painful or vitiated or emitted, face-plasters should be applied, at the same time that some oleaginous substance is given as a purgative and various secretories administered to the nose.[78]

(97.) Bark and leaves of cinnamon, Mâmsî (*Nardostachys jatamansi*), Nata (*Tabernaemontana coronaria*), and white sandal, realgar, Vyâghranakha (*Unguis odoratus*), Harêṇu (*Piper aurantiacum*) tamarind,[79] Kushṭha (*Saussurea Lappa*), the two Surasâ (Tulsi-plant), and the two Haridrâ (turmerics)[80], applied as a face-plaster, act as remedies against poison.

(98*a*.) Mûrvâ (*Sanseviera zeylanica*), Aśvagandhâ (*Physalis flexuosa*), the three myrobalans[81], Karañja (*Pongamia glabra*), applied as a face-plaster, act as a remedy against swellings.

(98*b*.) Mûrvâ, mixed with cow's urine, and applied as a face-plaster, is said to be a remedy against swellings.

(99.) While a plaster is applied to the face of a patient, he should not laugh, nor weep, nor enjoy sleep, nor should he eat. Nor should he warm himself at a fire, nor retain the plaster after it has become dry.[81]

(100.) [82]Moles and black spots, moreover skin-diseases, freckles, hairy moles and pigmentary moles of a person are instantly cured, and his sight and complexion cleared through the application of a face-plaster.

(101.) If one laughs or eats or sleeps while a plaster is applied to his face, his

conterminous with Kashmir."—Another noteworthy point is that the present passage appears to teach a tetrad of *dôsha* or 'humours;' *viz*., air, bile, phlegm, and blood. The same doctrine seems implied in the formulæ of vv. 106-108; see note 86. On the other hand, the introductory verse 15 names a triad of humours (*dôsha-trayas*), *viz*., air, bile, and phlegm. There is here an apparent inconsistency. Ch., III, 1 [20] (§ 3) already teaches a triad of 'humours,' and since then that doctrine has been the accepted one; see AS., I, 1 [3]. 13). AH., I, 1 (v. 6); but there have been older schools (*tanto-ântariya*) teaching a tetrad of 'humours.' see Aruṇadatta's comment on AH., I, 1, v. 6 [4]; and there are passages even in Suśruta which imply, though inconsistently, that *vakta* or 'blood' is one of the 'humours.' The passages referred to, however, do not necessarily imply a tetrad of humours. The term *dôsha* may not be used in them in its technical sense; as may be seen from the fact, that in verse 113 we have *rasa-dôsha*, as if chyle were a fifth humour; see also Aruṇadatta's explanation (*l. c.*) of the term *vaktadôsha*, blood-disorder.—Finally it may be noted (perhaps as a mere coincidence) that the two seasons here omitted, *hêmanta* and *śiśira*, are just the two seasons expressly named in the introductory vv. 17 and 18 as suitable for the use of *lekana*; see note 13.

[77] Roots of the cotton plant are mentioned in a formula in Śâ., III, 11, v. 102 [20].—*Atasî* must be a clerical error for *Latâ*. Perhaps the scribe originally meant to write *Aṇanta*, which is a synonym of *Latâ*, but which would not have suited the metre.—On the "trees with a milky sap" see note 69.

[78] The *śirasî virêka* or *śirô-virêchana*, 'secretory applied to the head,' is one of the *anyas* or applications of medicated substances to the nose. Its object is to cause a flow of secretion from the nose and thus to relieve cerebral congestion. Medicated oils applied for a similar purpose are called *Pṛiṣhâna*. In affections of the head, eyes or nose, the fumes are drawn in through the nose. See Mat. Med., pp. 17 and 20.

[79] The reading *dadhîka* is very doubtful. The remaining traces perhaps would rather point to a word ending in *lîlâka*.

[80] On the two *Surasâ* (Ocimum sanctum) see Dallana Miśra's commentary to S., I, 38 (8th list); also Mat. Med., p. 219. They are the white and black varieties of the Tulsi-plant. On the two *Haridrâ* (Curcuma longa) see Mat. Med., p. 256: "The term *haridr-advi*, or the two Turmerics, signifies turmeric and the wood of Berberis asiatica. They are often used together... and their properties are said to be analogous."

[81] Similar cautions are given in AH., I, 23, verses 15[3] 16 [3], V., LXII, 44 [79], Śâ., III, 11, vv. 25 [20], 60 [20].

[82] All these defects belong to the so-called *kshudra-rôga* or 'minor diseases,' on which see the Nid., p. 194, also Śâ., I, 7, vv. 84-92 [20].—*Pitpa* is probably the same as, or an error for, *pidpa* (or *pîdpa* as now commonly spelled). In A.K. II, 6, v. 49 [19], it is identified with *jatula*, but the commentary to Chd., LV, 37 [20] the latter is identified with *ahâîva* or *ahâîva*. *Jatula* is said to be the *Nævus pilaris* or hairy mole; the Mod. Dict. has *jatumasi*. See also verse 88.

phlegm as well as his air will quickly grow to excess: in such a case secretories should be applied to the head; oleaginous substances also should be administered and fumes inhaled.[73]

(102.) If through the heat of a fire the face-plaster of a patient has melted, or if he has allowed it to become dry, then moles and the other above-mentioned diseases are said *to break out*. These should be relieved in the manner above explained.

(103.) [74]Night-blindness, dimness of the eyes, heat in the head, diseases of the eyes caused by deranged bile and accompanied by heat, moreover any other evils affecting the skin of the face, are instantly relieved through the application of a face-plaster.

(104.) In the case of any disorder of the eyes due to *derangement of* the phlegm and air, in the case of the application of a secretory to the nose[75] of people suffering from nasal catarrh, in the case of lock-jaw, and in the case of diseases of the head, it is said that face-plasters should be avoided.[76]

(105.) A face-plaster should be made of the thickness of a quarter aṅgula; the middle sort should have the thickness of a third of an aṅgula, and the thickest should measure (half an aṅgula).[77]

(106—108.) [78](I) Liquorice, Rôdhra (*Symplocos racemosa*), the three myrobalans[79], leaf-stalk of the lotus, candied sugar, gold, and red ochre; (II) Leaves and bark o cinnamon, cardamoms, aloe-wood, Deodar, Punarnavâ (*Boerhaavia diffusa*), Vyâghranakha (*Unguis odoratus*), and galena; (107) (III) Realgar, orpiment, and Bark of Vṛihati (*Solanum indicum*), Mâṁsî (*Nardostachys jatamansi*), Harênu (*Piper aurantiacum*), and Paripêlava (a kind of *Cyperus rotundus*); (IV) Galena, red ochre, Kaṭphala (*Myrica sapida*), and Śârivâ (*Ichnocarpus frutescens*) mixed with sugar: (108) the four *medicines*, severally described in the foregoing *four* half-verses, *respectively* relieve diseases caused by *the derangement of* phlegm, blood, bile and air; or they may be applied externally as pastes all about the eye up to the roots of the eye-lashes.

(109.) A little Rôdhra (*Symplocos racemosa*) rubbed with clarified butter, or chebulic myrobalan pounded with iron *dust*, bark of Vṛihati (*Solanum indicum*) and galena in equal quantity, made into a paste, may be used as a remedy in all *eye*-diseases.

(110.) Red ochre, rasôt,[80] galena, realgar, calx of brass in equal parts, mixed with a little black pepper, a double portion of.....

Fifth Leaf: Reverse.

(111.) With pepper and calx one should boil Harita[81] on a slow fire together with clarified butter. This will make a paste for anointing the eyelids.

[73] With this compare AH., I. 22. vv. 17*b*, 18*a* [74],—*Timiropa*, dimness, opacity, is a general term for cataract in all its stages, but more especially for its early stage (*timira*).

[74] Similar directions are given in AH., I. 22. v. 17*a* [75].

[75] This verse occurs, almost verbally the same, in V., LXII. v. 44 [76]. The first half is identical, but the second half-line runs thus: *mukhyasnasa-tu tri-bhâgaḥ syâdu-attrasô 'rdhâṅgulô bhavêt*. It is also nearly the same in BhP., II, 4 [76]. In a shorter version, of one half-line, it occurs in AH., I. 22. v. 15*a* [76], and Śâ., III, 11, v. 2*a* [76].—An 'aṅgula' is equal to ⅞ of an inch or 2 centimetres. The thickness of the ordinary plaster accordingly should be $\frac{7}{8}$ of an inch or 1½ centimetre; that of the thickest would be ⅞ of an inch or 1 centimetre.

[76] Compare with this the directions and formulæ given in AH., VI. 16. vv. 2-5*a* [69]. It may be noted that, while in our Manuscript four formulæ are given, one for each of the four causes of disease: phlegm, blood, bile, and air, in the Aṣṭâṅga Hṛidaya there are only three formulæ for air, blood (*pitta-rakta*), and bile. For a similar treatment of the blood, see note 76. The intention, however, may really be to prescribe the four formulæ, not for four humours severally, but for three different diseases of the eye, *viz.*, when caused by phlegm (*kapha*), or by hemorrhage (*asra-pitta*), or by air (*vaśila*); so that there is no implication of four humours. Also by *pitta-ṡôṇita*, bile-blood, in vv. 113, and by *rakta-pitta*, blood-bile, in v. 115, probably hemorrhage is referred to; both terms *pitta-ṡôṇita-dâhana* and *rakta-pitt-âkasi* meaning unhealthy hemorrhagic conditions. *Pitta-rakta*, *pitta-ṡôṇita*, *pitt-âsra*, *ṡôṇita-pitta*, *asra-pitta* are all synonyms of the usual term *rakta-pitta* for hemorrhage see Med. Dict.—On *vidâlaka* see Śâ., III. 13. v. 29 [76], Chû., LXII. 9 [69], Mat. Med., p. 18. It is a paste for external application to the eyelids.

[77] On *rasôt* or *rasôdgâraṇa*, an extract of Berberis aristica, see Mat. Med., p. 107.

[81] *Harita* is a synonym of *Stanyaśuddhi*, on which see note 73.

(112.) Listen to (the treatment of baldness and other hair diseases) as it is being explained *by me*.....

(113.) Derangement of the chyle, indulgence in sexual intercourse, and vitiation of the bile and blood cause premature grey hair, and in the case of an old man it is due to old age.

(114—116.) The constitution of a woman is generally phlegmatic; lying..... ..... enjoying, they discharge the vitiated menstrual blood. (115) Hence their scalp becomes relieved of the heat of their blood and bile, and thus they do not loose their hair, and therefore women are not bald-headed. (116) On the contrary, the blood and bile of men become vitiated; *hence* loosing the roots of the hair, the head becomes bald.

(117.) Baldness, consisting in the entire loss of hair or in its becoming copper coloured, if it is long established on the head, cannot be removed. *But* if it is of recent origin, it may be remedied and should be carefully attended to.[89]

(118—120.) In the case of baldness or grey hair one should in the first place have frequent recourse to blood-letting; the application of emetics *also* is advantageous for the purification of the vitiated blood; (119) afterwards, when the bowels are cleared, suitable food should be taken Also different preparations of oil and hair colouring substances may be used, (120) and also drugs that cause the production and growth of hair. *Frequent* washings of the hair, too, are beneficial, because they remove the *disorders of the* humours.

(121.) A wise physician should administer clarified butter mixed with sweet, sour and saline substances, to a patient suffering from cough caused by *derangement of* the sir, either in his food or by itself, according to the state of his vital power.[90]

(122 and 123.) Wheat and rice may be eaten, with the broth of the flesh of domestic animals, marsh-animals, or water animals, and with treacle and onions and *any other* sour, oleaginous, hot or sweet things.[91] (123) Or spirit of rice with its froth, warm water and broths may be drunk at will, when one is suffering from cough caused by *disordered* air, or plenty of oleaginous substances with treacle and milk.[91]

(124.) An electuary prepared from ginger, Shaḍi (*Curcuma zedoaria*), raisins, Śriṅgi (*Rhus succedanea*), long pepper and Bhārgi (*Clerodendron siphonanthus*), mixed

[89] On the diseases of the hair, their causes and treatment, see the corresponding passages in Ch., VI, 26 [264] (vv. 259 ff.), AH., VI, 23, vv. 24-32 [518] and VI, 24, vv. 28-45 [537], S., II, 13, vv. 29, 30 [288] and IV, 20, vv. 21a, 22b [476], V., LXII, 154, 35, 1467. [738]. The main defects of the hair are of two kinds, either *palita* 'grey hair' or *khālitya* (or *khalati*) 'loss of hair,' 'baldness' (see AH., I, 10, v. 13 [91]). The former makes the hair grey (*kēśān pachati*); the latter causes the hair to drop (*prachyāvayati rōmāṇi*), and it is of two kinds, either *kēśitya* 'ordinary baldness' or *indralupta* 'morbid baldness.' By the latter some kind of porrigo (ringworm or scald-head) seems to be intended. Another name for *indralupta* is *kṣuddraka*, 'red hair,' and the latter is a synonym of the *tāmra-kēśa*, 'copper-coloured hair,' in our manuscript; see AH., VI, 24, v 20 [537], where the text has *kṣudra-kēśaka* and the commentary explains it by *indralupta*. All three diseases, *palita*, *khalati* and *kṣudra-kēśaka*, are mentioned together in Ch., VI, 26, v. 259 [264], and AH., VI, 24, v. 3 [537].

[90] For a similar direction, see AH., IV, 21, vv. 11b, 12 [458].

[91] A similar direction occurs in Ch., VI, 22 [260] (v. 74), AH., IV, 3, v. 19 [369], V., XI, 2 [580] and in Chik., XI, 1 [558]. Another similar direction is in AH., IV, 21, v. 2 [458]. The Chakradatta explains that by the *grāmya* or domestic animals are meant such as the cock (*kukkuṭa*), by the *ānūpa* or marsh animals, such as the hog (*śūkara*), by the *audaka* or water-animals, such as the turtle (*kachchhapa*). Also in HA., I, 6, v. 57 [43] the *kukkuṭa* is referred to the *grāmya* class. This does not, however, seem to quite agree with the classification of Suśruta. That work (p. 198, transl., p. 250) divides the animals into 6 classes: *jal-āśaya* (water), *ānūpa* (marsh), *grāmya* domestic, *krauṅcha-śāyin* (carnivorous), *ēka-śaphā* (one-hoofed), *jāṅgala* (wild). Of these the three first-named classes are those mentioned in our MS. Suśruta adds another division into only two classes: *jāṅgala*, including the four last-named of the above six classes, and *ānūpa*, comprising the two first-named. The *jāṅgala* class of this second division is sub-divided into 8 sub-classes, among which there is a *vishkira* (bird) and also a *grāmya* sub-class. Here the cock (*kukkuṭa*) does not belong to the *grāmya*, but to the

with treacle and *sweet* oil, is beneficial to sufferers from cough caused by *derangement of* the air.[92]

(125.) A powder made of long pepper, Mâruta (*Eleusine corocana*), cumin, Shaḍi (*Curcuma Zedoaria*), Pushkara, and plumbago-root, and mixed with rock-salt, is beneficial to sufferers from cough due to *derangement of* the air-humour.[93]

(126—128.) Boil thirty pala[19] of Kaṇṭakâri (*Solanum xanthocarpum*) in one âḍhaka[19] of water, till it has been reduced to one-fourth *of its original quantity*; and, after straining it, add seven pala of treacle:[94] (127) then, with powders of dry ginger, Bhârgi (*Clerodendron Siphonanthus*), cardamoms, long pepper, Shaḍi (*Curcuma Zedoaria*), and plumbago-root, and with four pala of clarified butter and (sweet) oil, boil it, (128) till it attains the consistency of a linctus, and when it has become cold, add two pala of honey and one pala of powdered long pepper, and then lick it as a remedy against cough.[95]

(129.) Boil a paste of Bhârgi (*Clerodendron Siphonanthus*) and clarified butter with an infusion of the Daśamûla[46] (or Ten roots) in the broth of a cock or a partridge. This is an excellent remedy against cough due to *derangement of* the air.[96]

(130.) In a prastha of the juice of Kaṇṭakâri (*Solanum xanthocarpum*) boil a kuḍava[19] of clarified butter with a paste of Punarnavâ (*Boerhaavia diffusa*). This is an excellent remedy against cough due to *derangement of* the air.

(131.) Boil a paste of Bhârgi (*Clerodendron Siphonanthus*) and clarified butter, mixed with two parts of the juice of Vyâghri (*Solanum xanthocarpum*), in four parts of curdled milk. This makes an excellent remedy for cough due to *disorder of* the air-humour.[97]

(132*a*.) In the case of a bilious *cough* the drinking of clarified butter, together with the use of purgatives, is beneficial.[98]

rishkira; but perhaps in the original classification into 6 classes, it would have been counted among the *grâmya*. To the *grâmya*, as a sub-class, belong only quadrupeds, such as the horse, cow, goat, sheep, etc. The *âraṇya* class of the second division has 5 sub-classes, among which there is a *khâta-chara* (shore-walker) and a *kôśa-stha* (sheath-clad) sub-class. To the former belongs the hog *varâha* or *śûkara*, to the latter, the turtle (*kûrma* or *kachchhapa*). Herein Chakradatta agrees with Suśruta. With v. 123 compare AH., IV, 3, v. 34 [89], 44 [91], and IV, 5, v. 755 [349].

[92] The identical formula occurs in V., XI, 14 [101] and is quoted in Ch., XI, 2 [237] (Mat. Med., p. 140). But in these works, the first half-line is differently arranged and runs as follows: *Bhârgi-ârdrakâkh tafi trikgi pippali vitankâtaka-jaiḥ*. Somewhat similar formulas are those of V., XI, 13 [100], 15 [101] and those of Ch., VI, 22 [192] (vv. 48, 49) and AH., IV, 3, vv. 13*b*-15 [89].—The drug, spelled *shogi* in our Manuscript, appears to be the same as what is usually spelled *tafi* or *taṭki* or *taṭhi*.

[94] Compare the formula in AH., VI, 3, vv. 20, 21 [230]. It contains all the ingredients of our formula, except *Mâruta*, instead of which it substitutes several other drugs.—*Pushkara* appears to be unknown at the present day. See Mat. Med., p. 314, which says: "This root is not available; the root of Aplotaxis auriculata (*Kuṣṭha*) is substituted for it." According to the Phar. Ind., II, p. 296, III, p. 451, it is probably the Orris-root (*Iris germanica*).

[94] *Agé* makes no sense; it is probably a scribal error for *agau*, seven.

[95] With this formula may be compared a somewhat similar, though much shorter one, Ch., VI, 22 [192] (v. 33), AH., IV, 3, vv. 35, 4*a* [89], Chd., XI, 33 [157]. Compare also AH., IV, 3, vv. 14, 15 [89].

[96] This formula is found, verbally the same, in V., XI, 16 [101], where it is called the "*Daśa-mûl-âdyaṁ ghṛitam*." It is also quoted in Chd., XI, 30 [224], under the same name.

[97] This formula is found, verbally the same, in V., XI, 17 [101], where it is called the *Bhârgyâdighṛita*. The second half-line there reads *bhârgi-rasaṁ dvi-guṇitaṁ*, but this is certain to be a false reading for *syâghri-rasaṁ*, as the *bhârgi* is already included in the first part of the formula. The traces of '*vâghi*' are quite distinct in our Manuscript.

[98] The same direction is given in AH., IV, v. 35*b* [89].

THE BOWER MANUSCRIPT.

PART II.—PLATES VI TO XXXIV.

A.—TRANSLITERATION.

First Leaf: Obverse.

Introduction.

1 [Na](mas)=Tathâgatêbhyaḥ ‖ [1]Prâk-praṇitair-maharshiṇâṁ yôga-mukhyais-samanvitam [|] vakshyê 'haṁ siddha-sa(ṁ)ka[r]shsha[ṁ] nâmnâ vai Nâvanîtakam ‖[1 ‖] Nânâ-vyâdhi-paritânâṁ nṛiṇâṁ str(î)ṇ(â)[ñ]=cha yad-dhitam [|] 1 2

2 kumârâṇâṁ hitaṁ yach=cha tat=sarvvam=iha vakshyatê ‖[2 ‖] Samâsa-rata-buddhi- 3

3 nâṁ bhishajâṁ prîti-varddhanam [|] yôga-vâhulyataś-ch-âpi vistara-jñaṁ manô-'nugam ‖[3 ‖] Adhyâyaṁ chûrṇa-yôgânâṁ prathamaṁ ch-âtra 4

4 vakshyatê [|] dvitîyaṁ ghṛita-pânânâṁ tṛitîyaṁ taila-saṁjñitam [‖ 4 ‖] Chaturtthaṁ miśrakaṁ nâma nânâ-vyâdhi-chikitsitam [|] pañchamaṁ vasti-yôgânâṁ 5

5 rasâyana-vidhâ nataḥ[2] ∽ [‖ 5 ‖]

6 Saptamaṁ cha yavâgûnâṁ vṛishyam=ashṭamam=uchyatê [|] nêtr-âṁjanânâṁ navamaṁ[3] daśamaṁ kêśa-rañjanam [‖ 6 ‖] Abhayâ-kalpa-nâm-âkhyam=atr 6 7

7 =aikâdaśam=uchyatê [|] dvâdaśaṁ syâch=chhailajatôś[4]=chitrn- 7

8 kasya trayôdaśam [‖ 7 ‖] Kumâra-bhṛityam=apy-atra syâch=chatum[4]=ishyatê [|] 8

9 vandhyâ-chikitsit-âkhyaṁ cha jûêyaṁ pañchadaśaṁ budhaiḥ [‖ 8 ‖] Su-bhagâ- 9

10 chikitsit-âkhyañ=cha[5] tathâ shôḍaśakaṁ matam [|] ity-êtê shôḍa-

11 ś-âddhyâyâ vijñêyâ Nâvanîtakam [‖ 9 ‖] N=êdaṁ dadyâd=a-putrâya na ch=â-bhrâtrê kathañ-chana [|] a-śishyê prastavô na syât=karttavya'iti mê matiḥ ∽ ‖ [10 ‖] ⊙

First Adhyâya.

12 Tâlisa-patraṁ marichaṁ[6] nâgaraṁ pippalî tathâ [|] yath-ôttaraṁ bhâga-vṛiddhâs[6]= 11

13 tvag-êlê ch=âṛddha-bhâgikê [‖ 11 ‖] pippaly-ashṭa-guṇâ ch=âtra pradêyâ 12

14 sita-śarkkarâ [|] kâsa-śvâs-âruchi-haraṁ[7] tach-chûrṇnaṁ bhakta-rôchanam [‖ 12 ‖] hṛit-pâṇḍu-grahaṇi-śôsha-kâsa-plîha-jvar-âpaham [|] chhardy-atisâra-gulma- 13

15 ghnaṁ mûḍha-vât-ânulômanam=iti [‖ 13 ‖] ⊙ Tâlisa-

16 kaṁ nâma chûrṇnam ⊙ Yavânîṁ tintiḍîkâṁ cha nâgaraṁ s-âmblavêtasam [|] 14

17 dâḍimaṁ vadarañ-ch-âmblaṁ kârshikâṁy-upakalpayêt [‖ 14 ‖] dhânya-sau- 15

[1] Metre of verses 1-34: Śloka.
[2] Read *taṇaḥ*
[3] The scansion of this pâda is unusual.
[4] Read *chaturvidatam*, as shown by the metre and sense.
[5] This pâda has one syllable in excess.
[6] The scansion of this pâda is irregular.

yathum=arśâṁsi pâṇḍu-rôgaṁ=arôchakam [1] hṛid-rôgaṁ grahaṇî-rôgaṁ kâmalâṁ vishama-jvaram [॥ 489 ॥] kushṭhaṁ plihânam=u[tk][ésaṁ śamaya]- 490

3 nty=upasêvitâḥ [1] niratyayaṁś-chêt=kramaḥ syâd=dhruvô mâṁsa-ras-ôdanaḥ [॥ 490 ॥]

Prastha-virêkô nâma ślô 5 pâ 1[124] [125]Rôdhraṁ shaḍîṁ pushkara-mûlam 491

=êlâṁ mûrvvâṁ vidaṁgâṁ trivṛitâṁ yavânîm [1] chavyâṁ priyaṁgu

4 kumudaṁ viśâlâṁ kirâtatiktaṁ kaṭurôhiṇîñ=cha [॥ 491 ॥] drôṇê 'mbhasaḥ kar- 492

sha-samâni paktvâ pûtê chatur-bhâga-jal-âvaśêshê [1] rasê 'rddha-bhâgaṁ madhunaḥ pradatvâ[126] pakshaṁ nidhêyô ghṛita-bhâjana-sthaḥ [॥ 492 ॥] madhv-â- 493

5 savô 'yaṁ kapha-pitta-mêhân kshipraṁ nihanyâd=dvi-pala-p[rayô]gât=[1] pâṇḍv-âmay-ârśâṁsy-aruchi-grahaṇyaḥ dôshân=kilâsaṁ vividhâṁ ś=cha kushṭhân=iti [॥ 493 ॥]

Madhv-âsava-yôgô nâma (I)[127]Madhûkaṁ mu- 494

6 sta-mṛidvîkâ-kârshmaryâṇi parûshakam [1] trâyamâṇaṁ=uśîrâṇi triphalâṁ kaṭurôhiṇîṁ [॥ 494 ॥] pîtvâ niśi sthitaṁ jaṁtur-jvarâch=chhîghraṁ vimuchyatê ॥ 495

(II) Pippali-

7 śarkkarâ-kshaudraṁ ghṛita-miśraṁ payaḥ-śritam [॥ 495 ॥] tat=pañcha-sâraṁ pâta- 496

vyaṁ jvara-kâsa-kshay-âpaham [1] (IIIa) Kaliṁgakâ paṭôlasya patraṁ kaṭu- 497

karôhiṇî [॥ 496 ॥] (*b*) paṭôlaṁ śârivâ mustaṁ

8 pâṭhâṁ kaṭukarôhiṇîṁ ॥ (*c*) nimbam=paṭôlaṁ triphalâṁ mṛidvîkâ musta=vatsakau [॥ 497 ॥] (*d*) kirâtatiktam=amṛitâṁ chandanaṁ viśvabhêshajam [1] (*e*) guḍû- 498

chy=âmalakaṁ mustâṁ=ardha-ślôka-samâpanâḥ [॥ 498 ॥] kashâyâḥ śa- 499

9 mayaṁty=âśu pañcha pañcha-vidhaṁ jvaram ॥ [499*a* ॥] (IV)[127]Arishṭa-patraṁ sa- 500

paṭôla-chandanaṁ sa-bhadramust-âmalakaṁ harîtaki [1] jalêna siddhâ sa-ghṛitâḥ sa-śarkkarâḥ śameti tri-sthûna-gatam

10 j[v]araṁ nṛiṇâṁ ॥ [500 ॥] (V)[128]Madhu-t-trikaṁ dvê triphalê sa-pâṭhê bhâgau cha 501

maṁjishṭhika-śârivâyâḥ [1] jal-ônmitô nirmala-paṭṭa-pûtaḥ sarvva-jvarâṇâṁ śa- 502

manaḥ kashâyaḥ ॥ [501 ॥] (VI)[129]Chandanaṁ padma-

11 [késaraṁ mu]stâ kaṭukarôhiṇî [1] vatsakaṁ trâyamâṇâñ=cha drâkshâ vana- 503

parûshakam [॥ 502 ॥] madhukaṁ śîtapâkañ=cha yashṭîmadhuka-śarkkaraṁ [1] jîvak-arshabhakau ch=ôbhau tath=aiv=âmalakâny=api [॥ 503 ॥]

Sixteenth Leaf: Obverse.

1 [× × × × ⏑ — — × × × × ×] (ulû)khalê [1] râtri-paryushitaṁ hy=êtad=dad- 504

yâch=chharkkarayâ saha [॥ 504 ॥] kashâya êsha vâta-[× × × × × ⏑ — ⏑ — ॥ 505

2 × × × × ×. × × × ś](l)[ô](10) (I) Abhayâ-hiṁgu-pippalyô yavânîm= 506

âmbla-vêtasaṁ [॥ 505 ॥] êtân=aksha-samân=bhâgân=pivê[t=t]u [× ⏑ — ⏑ — I (II) × × × × ⏑ — — × × × × × ⏑ — ⏑ — ॥ 506 ॥ × × 507

3 × × ⏑ — — × dî]panîyaṁ paraṁ smṛitam [1] hṛid-rôgê pârśva-śûlê cha 508

vâta-gulmê cha pûjitam [॥ 507 ॥] kôshṭha-sthêshu cha (vâ)[— × × × × × ⏑ — ⏑ — I (I) × × × × ⏑ — — × × × × × ⏑

4 — ⏑ — ॥ 508 ॥ prasa]ṇyatê nâsyam=êtach=chhîrsha-rôga-vinâśa[nam [॥ 509*a* ॥] 509*a*

(IIa)[130]Śirô-rujâyâṁ sa-ghṛitaḥ sa-chandanaṁ kushṭham=athô [131]v-âpi nat-ôtpa- 510

laṁ cha ॥ (*b*) yashṭyâ-

[124] Read *ślô 7 pâ 1* for *ślô 5 pâ 1*.
[125] Metre of verses 491-493 : Triṣṭubh.
[126] Metre of verses 494-499*a* : Śloka.
[127] Metre of verse 500 : Vaṁśasthavila.
[128] Metre of verse 501 : Triṣṭubh.
[129] Metre of verses 502-509 : Śloka.
[130] Metre of verses 510-513*a* : Triṣṭubh.

5 hvaṁ-ê]lâ kamal-ôtpalaṁ cha prapauṇḍarîkaṁ suradâru-kushṭhaṁ[‖ 510 ‖] kuryât 511
samaṁ padmaka-chôrakau cha śirô-rujâ(yâ)ṁ [sa-ghṛitaṁ pradêhaṁ ‖ (III) × —
⏑ — — ⏑ ⏑ — ⏑ — — × — ⏑ — — ⏑ ⏑ — ⏑ — — ‖ 511 ‖]
6 (gh)ṛit-ôttamaṁ vâ vadarêṇa siddhaṁ nastaḥ pradadyâ[d=ava]bhêdak-ântê | paś- 512
châd-ghṛitaṁ ch-âpy=a(nupâ)[yayîta × — ⏑ — — ⏑ ⏑ — ⏑ — — ‖ 512 ‖
× — ⏑ — — ⏑ ⏑ — ⏑ — — | 513
7 (bh)uktvâ cha bhakshyaṁ labhatê guḍêna [‖ 513*a* ‖] (IV) [16]Bilva-mûlaṁ pha[laṁ] 514
ch=aiva nastaḥ-karmmaṇi [*m*yôjayêt [ì] śighram=êtêna yôgêna śirsha-rôgaḥ
praśâmyatê ‖ 514 ‖ (V) × × × × ⏑ 515
8 saṁgṛihya tat-tailaṁ vipachêd=bhishak [ì] tatô 'sya n(as)tat(ô) dadyâch-chhirsha- 516
rôga-[vinâśanam ‖ 515 ‖ (VI) × × × × ⏑ — — × × × × × ⏑ — ⏑ — | ×
× × × ⏑ — — ⏑]
9 nastaḥ kuryât=punaḥ punaḥ [‖ 516 ‖] (VII) Bhâgô purâṇa-tailasya tâvat=syât=paṭa- 517
lasya cha [| × × × × ⏑ — — × × × × × ⏑ — ⏑ — ‖ 517 ‖ lalâ-] 518
10 ṭa-lêpaḥ śastô 'yaṁ khyâtaḥ śirsha-ruj-âpahaḥ [ì] ◎ (VIII) Lavaṇaṁ śṛiṁgavê[raṁ 519
cha × × × × ⏑ — ⏑ — ‖ 518 ‖ × × × × ⏑ — — × × ×]
11 chitraka-tindukê [ì] basta-mutrêṇa saṁyôjya lêpaḥ śirsha-[ruj-âpahaḥ ‖ 519 ‖ (IX) 520
× × × ⏑ — — × × × × × ⏑ — ⏑ — |]

Sixteenth Leaf: Reverse.

1 kaṇḍira-mârkka-mûlaṁ cha triphalâ-kaṭu-sarsbapâḥ -[‖ 520 ‖] gavâṁ mutrê[*m*ṇa 521
saṁyôjya lêpaḥ śirsh-ruj-âpahaḥ | × × × × ⏑ — — × × × × × a-]
2 mbar-âmbunâ [‖ 521 ‖] **Sirsh-âmaya-harâḥ paṁcha yôgâḥ ślô 16** ◎ (I) [× × 522
× × ⏑ — — × × × × × ⏑ — ⏑ — | *m*ajâjî chôra-]
3 kaṁ ch=aiva kaṇṭakâryâḥ phalâni cha [‖ 522 ‖] sûkshma-chûrṇṇam=idaṁ kṛitvâ 523
kuryât-pradh[*m*ânam=aushadham ‖ (II) *m*Vârttâka-kulaka-vyôsha-kulatth-âḍhaki-
mudga-jam ‖ 523 ‖]
4 yûsham=êtan=naraḥ pîtvâ pratiśyâyât=pramuchyatê ‖ (III) Saktûn=su-prayut[âṅ=] 524
kṛi[t](v)[â *m*ghṛitair-mallaka-saṁpuṭê ‖ 524 ‖ × × × × × × × × × × ×
× ×]
5 pâ ◎ (I) Kaṇḍiram-agninâ dagdhvâ bhasma tad-gṛihya bu[d](dh)i(m)â[n ì] dant- 525
anta [*m*raṁ vimardêta danta-śûl-ârditô naraḥ ‖ 525 ‖ (II) × × × × ⏑ 526
6 bh]âgêna danta-śûlaṁ praśâmyati ‖ (III) Ajâji [śṛiṁ]gavêraṁ-cha vidaṁgân(i) [*m*cha
saṁharêt ‖ 526 ‖ madhu-śuktêna saṁyôjya dant-âgraiḥ saṁnirûpayêt | dasa- 527
7 mû]laṁ su-pishṭaṁ tu sarpishâ saha dâpayêt [‖ 527 ‖ tata]s=tad=âyasê bhâṇḍê 528
agni[nâ × × ⏑ — ⏑ — | × × × × ⏑ — — × × × × × ⏑ — ⏑ — ‖ 528 ‖
(IV) *m*Nichulaṁ sa- 529
8 rshapa]ṁ śi[vê]taṁ pippalyô viśvabhêshajam [ì] kshâraṁ-cha lavaṇaṁ=ch=aiva ka- 530
baḍô danta-śûla-nut ‖ [529 ‖] (V) Sômarâj[iṁ *m*śu-pishṭâṁ tu guḍikâṁ kârâyêd-
bhishak | danta-śûl-âpahaṁ kuryât=kavaḍa-graham=uttamam ‖ 530 ‖
9 *m*Yavakshâraṁ śṛiṁga]vêraṁ śukta-pishṭaṁ vijânatâ [ì] danta-śûl-âpahaṁ kuryât- 531
kabaḍa-graham=uttamam ‖ [531 ‖] **Danta-śûla-harâ** × × × × × × × × × 532
◎ (I) Hiṁgu śigruka-niryâsaṁ kushṭhaṁ tagaram=êva cha | śata-

[16] Metre of verses 514-502*a*: Śloka.

10 pushpâ cha mustañ=cha tailam=ê]bhir=vipâchayêt [॥ 532 ॥] karṇa-pûraṇam=êtêna 533
karttavyaṁ karṇṇa-śûlinâm [॥] (II) Karṇṇa-kshvêḍê [ᵐkarṇṇa-nâdê kaṭu-taiḷêna
pûrayêt ॥ 533 ॥ nâda-vâdhiryayôḥ kuryât=karṇṇa-śûl-ôktam=aushadham ॥ (III) 534
Pippalyô bilva-mû-
11 lañ=cha kushṭhaṁ madhukam=êva cha ॥ 534 ॥ mâṁs]î (v)[y]âghranakaṁ ródhram 535
sûkshmêlâ dêvadâru cha [।] garbhên=ânêna tailasya prastham mṛidv-[ᵐagni-
ná pachêt ॥ 535 ॥]

Seventeenth Leaf: Obverse.

1 [ᵐnishpîḍya mûlaka-rasaṁ dadyât]=(s)n[é](ha)-samanvitam [।] têna karṇṇê pich[uṁ 536
dadyât=vasti-karma cha kârayêt ॥ 536 ॥ tên-ôpaśâmyatê kshipram karṇa-śûlaṁ 537
sa-dâruṇam ॥ (IV) ᵐSaukara-mûtram=â-
2 hṛitya śiśôr=mûtrêṇa v=â](pluta)m ॥ 537 ॥ pippalî-kshâra-siddhaṁ tu tailaṁ 538
ka[r]ṇṇa-ru[j-âpaham ॥ (V) × × × × ◡ — — × × × × × ◡ — ◡ —
॥ 538 ॥ × × × × ◡ — — × 539
3 karṇṇa-śûla-nivârana]m ॥ (VI) Kukkuṭasya bhavên=mêdaḥ sthûla-mâshâś=cha
vi[pachêt ॥ 539 ॥ × × × × ◡ — — × × × × × ◡ — ◡ — ॥ (I) × × × × 540
◡ —
4 — × × × × × ◡ — ◡]yam [॥ 540 ॥] prakshipya sarvvam=êkatra divasâ [× ◡ — 541
◡ — । × × × × ◡ — — × × × × × ◡ — ◡ — ॥ 541 ॥ × × × × 542
◡ —
5 — × × × × × ◡ — ◡]tam ॥ (II) Kakubhaṁ sum(an)â-tai(la)ṁ (va)raṇi [× ◡
— ◡ — ॥ 542 ॥ × × × × ◡ — — × × × × × ◡ — ◡ — । × × × × 543
6 ◡ — — × × × × vipa]ched=budhaḥ[॥ 543 ॥] sapta-râtra [◡ —]-pu(ṇye) [× × × 544
× ◡ — ◡ — । × × × × ◡ — — × × × × × ◡ — ◡ — ॥ 544 ॥
(III) Kshâraṁ pippa- 545
7 likaṁ kushṭhaṁ haritâlaṁ mana]ḥśilâm [।] kaṭphalañ=cha mṛiṇâ[laṁ cha tailaṁ
bhavati ch=âshṭamam ॥ 545 ॥ êtêna pâma-kushṭhâni dadrûṇi kiṭimâni cha । 546
vicharchikâ tathâ śvi-
8 tram sarvam=âsu vinâśyati ॥ 546 ॥ (IV) Ha](ri)drâ gairikaṁ kshaudraṁ kâsîsam= 547
atha saindhava[m । × × × × ◡ — — × × × × × ◡ — ◡ — ॥ 547 ॥
× × × × 548
9 ◡ — — × × × × × ◡ — ◡ — ।]êtat=tailaṁ vipaktavyaṁ kushṭh-âlêpanam=
uttama[m· ॥ 548 ॥ (V) × × × × ◡ — — × × × × × ◡ — ◡ — । × × × 549
× ◡ — —·× × × × × ◡ — ◡ — ॥ 549 ॥
10 × × × × ◡ — — × × × × × ◡ pî[shayêt [।] ûshâ-maṇḍêna dhôvitvâ dadru- 550
[kushṭha-vinâśanam ॥ 550 ॥ (VI) × × × × ◡ — — × × × × × ◡ — ◡ — । 551
× × ×
11 × ◡ — — × × × × × ◡ — ◡ —]m [॥ 551 ॥] sa-haridrâm=idaṁ (v)il[vaṁ × 552
× × × ◡ — ◡ — । × × × × ◡ — — × × × × × ◡ — ◡ — ॥ 552 ॥]

Seventeenth Leaf: Reverse.

1 [× × × × ◡ — — × × × × × ◡ — ◡ — । × × × × ◡ — — × × × × × ◡ 553
— ◡ — ॥ 553 ॥ × × × × ◡ — — × × × × × ◡ — ◡ — । × × × × ◡ 554
— — ×

2 × × × × ⏑ – ⏑ – ‖ 554 ‖ × × × × ⏑ – – × × × ×× ⏑ – ⏑ – ! × × × 555
× ⏑ – – × × × × ⏑ – ⏑ – ‖ 555 ‖ × × × × ⏑ – – × × × × ⏑ – 556
3 ⏑ – ! × × × × ⏑ – – × × × × × ⏑ – ⏑ – ‖ 556 ‖ × × × tu](ttha)- 557
mustá [cha × × × × ⏑ – ⏑ – ! × × × × ⏑ – – × × × × ⏑ –
4 ⏑ – ‖ 557 ‖ × × × × ⏑ – – × × × × ⏑ – ⏑ – ! × × × × ⏑]bhuṁjit- 558
[ta × × × × ⏑ – ⏑ – ‖ 558 ‖ × × × × ⏑ – – × × × × 559
5 × ⏑ – ⏑ – ! × × × ⏑ – – × × × × ×]tath=aiva [cha ‖ 559 ‖ × × × × 560
⏑ – – × × × × ⏑ – ⏑ – ! × × × × ⏑ – – × × × × ⏑ ⏑
6 – ⏑ – ‖ 560 ‖ × × × × ⏑ – – × × × × ⏑]rêṇa tu[! × × × × ⏑ – – 561
× × × × × ⏑ – ⏑ – ‖ 561 ‖ × × × × ⏑ – – × × × × × ⏑ 562
7 – ⏑ – ! (VII) [27]Naladaṁ chandanaṁ mustaṁ naktamâlâ sa-]vatsa[kaṁ ‖ 562 ‖ × 563
× × × ⏑ – – × × × × × ⏑ – ⏑ – ! × × × × ⏑ – – × × ×
× × ⏑ – ⏑ – ‖ 563 ‖ (VIII) Madhuk-árishṭak- 564
8 áj̀âj̀ì kṛitamâlâ sa-vatsakam ! takra-sauvîrakaiś-ch-âpi] pishṭa-kushṭha-[pralépanaiḥ
‖ 564 ‖ kushṭha-pâm-âpahaṁ siddhaṁ kaṇḍu-ghnaṁ dadru-nâśanam ‖ × × × × 565
⏑ – – × × × × ⏑ –
9 ⏑ – ‖ 565 ! × × × × ⏑ – – × × × × × ⏑ – ⏑ – ! ga]ndhika-musta-rôdhra- 566
sa[× × × × ⏑ – ⏑ – ‖ 566 ‖ × × × × ⏑ – – × × × × × ⏑ – ⏑ – ! 567
10 × × × × ⏑ – – × × × × × ⏑ – ⏑ – ‖ 567 ‖] kaṇḍû-kôṭha-piṭṭa[kâ[ś-cha 568
× × × × ⏑ – ⏑ – ! × × × × ⏑ – – × × × × ⏑ – ⏑ – ‖ 568 ‖ (I)
× × 569
11 × × ⏑ – – × × × × × ⏑ – ⏑ – ! niha]nyâd-bahu-vâ [– × × × × × ⏑ –
⏑ – ‖ 569 ‖ (II) × × ⸗ × ⏑ – – × × × × × ⏑ – ⏑ – ! × × × × ⏑ 570
– – ×]

Eighteenth Leaf: Obverse.

1 [prasâm](yat)[i] na sa[ṁ]śayaḥ ‖ [570 ‖] (III) Kadalyâḥ kshâra-t(ail)[é]na sidh- 571
mâni par[i](m)û(k)sha(yé)t [!] é(sha) [× × ⏑] (ni) dṛishṭa (apâmâ)[r]gg[ô] 'pi
[śás]tr[i](t)[aḥ ‖ 571 ! × × × × ⏑ – – × × × × × ⏑ – ⏑ – ! × × × × 572
⏑ – – ×
2 śa]śasya rudhirêṇa cha ‖ [572 ‖] (IV) Êraṇḍas-tagaraṁ kushṭaṁ chitrakaṁ mûtra- 573
pañchamam [!] âṭarûshaka-mûlaṁ cha shaḍgranthâṁ madhukan-tathâ [‖ 573 ‖]
prapunâḍaṁ viḍaṅgâni saindhavaṁ paripê(lav)[am ! × × × × snuhi-dug-] 574
dh[aṁ ×](s [i](dh)m(âná)[ṁ ma-]
h-[au]shadham ⊙ [‖ 574 ‖] **Sidhma-yôgâḥ śîô 6 ⊙** (I) Guḍêna śrapayêt=kshîraṁ 575
kad-ushṇaṁ kâmatab pivêt [!] mûtra-grahasya bhêshajyaṁ sadyastaṁ matam=
Aśvinôḥ ‖ [575 ‖] (II) Mṛidvîkâṁ śarkkarâṁ ch=aiva dadhi-maṇḍêna pâya- 576
(y)ê[t !]
4 mûtra-grahasya bhaishajyaṁ sadyashkaṁ samudâhṛitam ‖ [576 ‖] (III) Êrvvâruka- 577
sya bîjânâṁ=aksha-mâtraṁ prapîshayêt [!] yukt-âmbla-lavaṇaṁ pîtvâ mûtra-grâ-
hât=pramuchyatê ‖ [577 ‖] (IV) Dviḥ kumkumasy=âksha-mâtraṁ mṛidvîka- 578
5 rasa-pishimam [!] êka-râtra-sthitaṁ pîtvâ mûtra-grâhât=pramuchyatê ‖ [578 ‖]
(V) Ayô-rajaḥ sûkshma-pishṭaṁ madhunâ saha pâyayêt [!] mûtra-grahasya 579
bhêsajyaṁ sadyashkaṁ matam=Aśvinôḥ ‖ [579 ‖] (VI) Kharâśvâ hiṁgu-su(ra)-
[saṁ] 580
6 hirivêraṁ rasâñjanam [!] chitrakasya cha mûlâni tráyamânâm cha saṁharêt

THE BOWER MANUSCRIPT.

PART II.—PLATES VI TO XXXIV.

B.—TRANSLATION.

First Leaf: Obverse.

(INTRODUCTION.)

Salutation to the Tathâgatas!

(Verses 1—10.) I will compile a standard manual by the name of NÂVANÎTAKA[1] containing the foremost formulas of the Maharshis made up by them of old. (2) Whatever is beneficial to men and women afflicted with various diseases, whatever is also beneficial to children, that will all be declared in this book. (3) It should become a favourite with those physicians whose minds delight in conciseness, but on account of the multiplicity of its formulas it will also be welcome to those who desire copiousness. (4) The first chapter will give formulas for powders; the second will be concerned with various kinds of (medicated) clarified butter; and the third with (medicated) oils. (5) The fourth will be a miscellaneous chapter giving formulas for the treatment of various diseases; the fifth will give formulas for enemas, followed by one with directions for tonics.[2] (6) The seventh will deal with gruels, the eighth with aphrodisiacs, the ninth with collyriums, the tenth with hair-washes. (7) The eleventh will be concerned with the modes of using the chebulic myrobalan. The twelfth will be about bitumen; the thirteenth, about the plumbago-root. (8) The fourteenth is intended to deal with the treatment of children; the fifteenth will concern itself with the treatment of barren women, (9) and the sixteenth with the treatment of women who are blessed *with children*.[3] These sixteen chapters will constitute the Nâvanîtaka. (10) It should not be given to any one who has no son, nor to any one who has no brother; nor should it be taught to any one who has no disciple.[4]

[1] 'Nâvanîtaka' is the name of the work, as shown at the end of chapters 1, 3, 4, and 8. That word means 'cream,' and it is a name very appropriate to the character of this work, which is intended to give 'approved extracts' (*siddhasaṁkarsha*) from the writings of the more ancient medical authorities. See Bühler, in Vienna Oriental Journal, Vol. V, p. 304.

[2] The numeral 'sixth' is omitted in the original text. Probably *rasâyana-siddhântaḥ* is a clerical error for *rasâyana-vidhâ tataḥ*, i.e., 'then (follow) directions for elixirs.'

[3] *Su-bhaga*, literally 'well-favoured' is in ordinary language a woman who has borne children and is, therefore, 'well beloved' by her husband (*patipriyâ*). In S., III, 10 [20](v. 225) it is applied to 'a woman who is nursing.' In the present case, as the context shows, it must mean 'a woman during her pregnancy and while she is nursing.' The term *subhagâchikitsita*, i.e., 'the medical treatment of such a woman,' is not found in any other medical work, so far as I am aware.

[4] Compare the same direction in Part I, verse 67. See the similar direction in Ch., III, 8, cl. 9 [25], JGOS., Vol. XXVI, p. 448). See also S., 2[1]. (§ 5). V., I [11] (vv. 114-116), HS., I, 1 [3].

THE FIRST CHAPTER: FORMULAS FOR POWDERS.

(I) The TĀLĪSAKA Powder.[1]

(11—13.) *Take* leaves of *Tālīsa[2] (*Taxus baccata*), black pepper, dry ginger, and long pepper, successively increasing *their quantities* by one part, also half a part each of cinnamon and cardamoms, (12) and add to these white sugar, in quantity eight times as much as the long pepper. A powder, made of these, cures cough, asthma, loss of appetite, and gives one relish for one's food. (13) It removes diseases of the heart, morbid pallor[3], chronic diarrhœa, consumption, spleen *and* fever; *and* it stops vomiting, diarrhœa *and* abdominal swellings, *and* relieves flatulence.

(II) The SHĀḌAVA Powder.[5]

(14—17.) Take one karsha[6] each of lovage, tamarind, dry ginger, Indian sorrel, pomegranate, and sour jujube, (15) one-half karsha each of coriander-seed, sonchal-salt, cumin-seeds, and cinnamon, one hundred (pala[7]) of long pepper, and two hundred (pala[8]) of black pepper; (16) and powder these together with four pala of sugar. This powder cleans the tongue, is a cordial, and promotes the appetite. (17) It also cures severe pains in the heart, spleen and sides, and removes retention of discharges and costiveness. It also relieves cough and asthma, and, being astringent, stops chronic diarrhœa and hæmorrhoids.

[1] This formula directs to powder and mix 1 part of tālīsa-leaves, 2 parts of black pepper, 3 of dry ginger, 4 of long pepper, ½ each of cinnamon and cardamoms, and 32 of white sugar. It is given identically in Ch., VI, 8^{330} (vv. 140-145); Cbd., X. 13^{157} and V., IX ^{244} (v. 64-67). All three, however, add a verse, giving an optional direction to boil the powder in sugar and make it into pills, as being more easily digested (*laghutara*). There are also a few unimportant verbal variations, of which only one deserves notice, viz., the substitution of *dēśa* or *rēga* for *kāsa* in verse 13. Charaka, e.g., reads *hrit-pāṇḍa-grahaṇī-dōṣa-śōṣa-plīhā-jvar-āpahaṃ*. The groundless repetition of *kāsa* 'cough' in our Manuscript must be a false reading. In a slightly shorter recension the same formula occurs in AH., IV, 5^{245} (vv. 58-60), and in a more expanded one, in Śā., II, 6^{122} (v. 114-117). In a fourth, still more different recension, it occurs in HS., III, 12^{180}. See also SY., XI, 14-17 ^{188}.

[2] The asterisk prefixed to a drug indicates that the identity of the drug is uncertain. Native Indian druggists are very unreliable in the supply of certain drugs, the identification of which, accordingly, greatly varies in different books on Indian Materia Medica. On *Tālīsa* see the Phar. Ind., Vol. III, p. 373.

[3] *Pāṇḍu* or *pāṇḍu-rōga*, i.e., 'morbid pallor,' includes a variety of rather heterogeneous diseases, such as chlorosis, anæmia, jaundice, etc. See Nid., p. 54, footnote.

[5] The practically identical version, in vv. 104-107, helps to identify the ingredients of the present formula. It is found identically in Ch., VI, 8^{329} (vv. 136-139), V, XIV ^{207} (vv. 32-35) and IX ^{240} (vv. 86-89), SY., XIV, 12-15 ^{202} and Cbd., XIV., 8^{190}. Chakradatta, however, and V., XIV ^{207} read *hṛit-plīhā* 'pains of the heart,' for *hṛit-plīha* 'heart disease and spleen;' and the latter also has *palaṃ, palē* for *tatas, tatō*. A slightly different recension is also found in AH., IV, 5^{244} (vv. 55d-58a), and a third in Śā., II, 6^{122} (vv. 110-113). There exist, however, three variants of this formula, all composed of the same ingredients, but in varying proportions. One of these variants is given in our Manuscript, below, (vv. 104-107), under the name Chūrṇārishṭa. Another is found in V., XIV ^{208} (vv. 26-29a), resembling that in vv. 104-107. The third is in Bh.P., II, 2^{18} (*ll.* 5-13). Lastly, there exists a fourth variant in HS., III, 6^{188} (*l.* 11 *ff.*). Here the proportions are the same, and the serial order also is practically the same, but the ingredients slightly differ.—The word *śāḍava-khāḍava* (Ch., p. 717, v. 40) = *khāṇḍava* means 'confection.'

[6] On this and other measures see Part I, note 19; also Ch., VII, 12^{263} (vv. 86 *ff.*) V., I ^{35} (vv. 95-113), S., IV, 31^{209} (§ 8), AH., V, 6^{261} (vv. 25-28), Bhāv., I, 2^{72}. Most of these measures are known under several synonyms; thus, the *tōla* (v. 251) is also called *dharaṇa* (v. 85, 806) and the *tālaka* (or modern *tolā*) also *kōla* or *kōl-laṭhi* (v. 97) and *badara* or 'a jujube' (v. 82). The *karsha* is also called *akṣha* (v. 122), *mādyikra-pada* (v. 69) or *vaiḍūla-pada* (v. 90, 784) or 'cat's paw,' *pīcha*, a kind of grain (v. 536), *pāṇitala*, palm of the hand (v. 840), *kuḍuḍi*, lit. something, a little (v. 622); and 2 *karsha*, also *kuḍi* (v. 915). The *pala* is also called *śikra* or 'bel-fruit,' or *aṃśāṣi* (v. 647) or *aṇanakha*, i.e., 'a fist-full' (v. 222), and 2 *pala*, also *prasṛiti* or *pracaṭita* (v. 622, 634, 820), and 100 *pala*, also *tolā* (v. 61, 351, 438, 454, 738), or *tola*, one hundred (vv. 15, 104, 191, 216, 277, 280, 228, 238, 437, 615). The *śāṇaka* is also called *kuḍava* (v. 252), or *pōtra* (v. 250, 302, 354), and the *droṇa*, also *kalaśa* (Part I, v. 35) or *arpaṇa* or *arṇava* (v. 177). A *aṃanakha* is as much as can be held in one hand when it is closed, so that the nails of the fingers and the thumb meet each other. See the Āpastambīya Śrauta Sūtra (Bibliotheca Indica ed.), I, 3, 15^{9}, also Ch., VII, 7^{215} (v. 62a), VII, 9^{261} (v. 12a). The AH., V, 6^{261} (v. 22) gives the following equations: 4 *śāṇa* = 1 karsha, 4 karsha = 1 pala, 4 pala = 1 *kuḍava*, 4 *kuḍava* = 1 prastha, 4 prastha = 1 *aḍhaka*, 4 *aḍhaka* = 1 *drōṇa*, 4 *drōṇa* = 1 vaha.

First Leaf: Reverse.

(III)

(18.) [10]*Take* . . . . . long pepper and ginger. *These*, made up with the juice of citrons and small bees' honey into a linctus, are a remedy against asthma.

(IV)

(19.) [10]Fried paddy, ... galena, and aments of long pepper, mixed with the fresh juice[11] of the flowers of Śirîsha (*Albizzia lebbek*) are another cure for asthma.

(V)

(20.) [12]Liquorice, black pepper, *Bhârgi (*Clerodendron Siphonanthus*), raisins, Pushkara[13], and aloe-wood, made up with honey and clarified butter into a linctus, are a remedy against hiccough and asthma.

(VI)

(21.) [14]Quills of peacock's feathers, and horn of deer, and the shoulder of an antelope, dipped in clarified butter and roasted within a wrapper, may be made up with honey and clarified butter into a linctus for people suffering from asthma.

(VII)

(22.) [15]Coral, conch shell, the three myrobalans[15], long pepper, and red ochre, made into powder, and dipped in honey and clarified butter, may be used as a linctus to cure hiccough.

(VIII)

(23.) [16]Seeds of Śaṇá (*Crotolaria juncea*) and its young shoots, also red ochre, as well

[10] I have not been able to identify any formula exactly like this in any other medical work.

[11] See Part I, note 41.

[12] See Part I, note 94.

[13] There is no formula exactly like this in any other medical work. There is, however, a much longer formula in Ch., VI, 21 [408] (vv. 114-117), which directs, among many other things, the feet and quills of a peacock and the horn of animals with one or two hoofs to be roasted and powdered, and then, with honey of the small bee (*kshaudra*) and clarified butter, to be made up into a linctus. A similar formula is given in S., VI, 50 [280] (v. 18), which directs the quills of a porcupine and other things to be roasted in a crucible, or the feathers of a peacock to be burned to ashes and these, with other things, to be mixed with honey and clarified butter as a linctus. Another similar formula is given in V., XII [186] (v. 46), and another in Ch., XII, 11 [325].—The term *pâṭa* refers to the process called *pâṭapâtin*, on which see Part I, note 43. The term *śkandha* refers to the bone of the shoulder; Suśruta has *asthi*, bone, *i.e.*, verse 17. The direction intends that the substances named should be, first, dipped in clarified butter, next roasted in a wrapper of leaves and clay, then powdered, and finally made up into a linctus with honey and clarified butter.

[14] This formula is found identically in V., XII [182] (v. 24), and BhP., II, 2 [35]. A variant of it occurs in S., VI, 44 [269] (v. 20); it substitutes the mineral ingredients, pearl (*mukti*) and galena (*sîsaka*), for the three myrobalans (*triphalâ*) and long pepper (*pippali*). The *triphalâ* is joined in S., VI, 44 [270], v. 19, with iron in another formula.

[15] See Part I, note 32. See also S., I, 38 [163] (Dutt's Translation, p. 171, No. 28), and Śâ., II, 6 [38] (vv. 9, 10).

[16] I can find no formula identical with this; but there is a variant in S., VI, 50 [280] (v. 17), which only omits the seeds and shoots of Saṇa, and runs thus: "red ochre and ashes of the bones of domestic animals may be made up, with honey, into a linctus in hiccough." Substantially the same are the formulæ in Ch., VI, 21 [408] (vv. 113-116) and AH., IV, 4 [240] (vv. 36, 37*a*), which direct that a draught or a linctus may be made of the diluted dung (*vid-rasa* or *śakrid-rasa*) of asses, horses, camels and other domestic animals, or of the burnt ashes (*masâ*) of their bones, etc., together with honey and clarified butter.

as the ashes of the bones of an ass, camel or horse, may be made up with honey and clarified butter into a linctus, to cure hiccough.

(IX)

(24.) [17]For the relief of hiccough and asthma one may also drink castor-oil mixed with clear palm wine[18], and after having thereby greased one's bowels, one should drink some depuratory medicine.[19]

Second Leaf: Obverse.

(X) The Vardhamânaka Powder.[20]

(25 and 26.) White sugar, bamboo-manna, long pepper, cardamoms, and cinnamon, taken in quantities successively doubled from the last backwards, and powdered, may be made up with honey and clarified butter into a linctus. (26) Or they may be given to eat, in the form of a (plain) powder, as a remedy against asthma, cough, and (excessive) phlegm; also to such as suffer from severe pains in the side, dyspepsia, benumbed tongue, and loss of appetite.

(XI) The Shadyâdi Powder.[21]

(27 and 28.) Powder one part each of zedoary, Pushkara[22], Jivanti (*Dendrobium multicaule*), *Chôraka (*Trigonella corniculata*), aloe-wood, dry ginger, long pepper, Musta (*Cyperus rotundus*), Surasa (*Ocimum sanctum*), cinnamon, cardamoms, Udichya (*Pavonia odorata*), (28) and Tâmalaki (*Phyllanthus urinaria*), also of sugar eight times as much as *the whole of* those *drugs*. This is a remedy against asthma, cough and fever, and cures pains in the side or in the heart.

[17] The first hemistich of this formula is found identically in Ch., VI. 5 [60] (v. 886), and Chd., XXX. 7 [96], and in a slightly different recension in AH., IV. 14 [108] (v. 424), in all three, however, with reference to abdominal tumours due to vitiated air (*udita-gulma*). The whole formula I have not been able to identify anywhere; but the substance of it is given in S., VI. 50 [337] (v. 195), which says that "gruels greased with clarified butter and taken in a tepid state, or tepid milk, are a cure for hiccough." It seems to be out of place here, in a chapter on powders, but it is probably to be understood as an appendix to all the short formulas (Nos. III-VIII) preceding it.

[18] *Vârunî* is the liquor made by fermenting the sap of the palmyra and date palms (the *Tâla* or Borassus flabelliformis, and the *Kharjûra* or Phœnix sylvestris), commonly called 'palm-wine.' It is mentioned in the Vârunî Jâtaka (I, 120) as a kind of spirits, dearer than *surâ*, or spirits of rice. See Journal, Roy. As. Soc., 1901, p. 876, footnote 2; also Fick's Sociale Gliederung, p. 170. In our formula, of course, date palm wine is intended: for the Borassus does not grow in north-western India, while the date palm does. See my Epigraphical Note in the Journal, As. Soc. of Bengal, vol. LXIX. Part I (1900), pp. 94, 132. By *manda* is meant *prasannâ*, or clear spirits, that portion which floats uppermost, clear of all sediment; see Ŝ., II. 10 (v. 54), *surâ-manda-ŝ prasannâ syât*, and Mat. Med., pp. 272, 273.

[19] On *samśôdhana* or 'depuratory medicines,' see AH., I, 14 [108] (v. 5). There are five kinds: enemas, emetics, cathartics, errhines, and blood-letting.

[20] This formula directs to take 1 part of cinnamon, 2 of cardamoms, 4 of long pepper, 8 of bamboo-manna, 16 of sugar. This explains its name Vardhamânaka, or "the progressively increasing." It is found, in a practically identical recension, in Ch., VI. 8 [63] (vv. 101-103), V., IX [102] (vv. 62, 63), Chd., X. 11 [100]. In another recension it occurs in BhP., II, 2 [7]. In a third, more detailed recension, it is given in Ŝ., II, 6 [9] (vv. 118-120), whence it is quoted in Mat. Med., p. 271, No. 3. In all these recensions the formula is given under the name of *Sitôpal-âdi*. In a fourth recension, giving the ingredients in the inverse order, it is found in AH., IV. 5 [102] (vv. 33b-34).

[21] For another recension of this formula, see verses 444b-446a.—Again another recension occurs in Ch., VI. 21 (ed. 1896, vv. 120, 121; ed. 1877 reads differently), V., XII [39] (vv. 55, 56), and SY., XII. 13, 14 [46]. All these three recensions give thirteen drugs. In a shorter recension, of only six drugs, the formula is found in AH., IV 4 [102] (v. 44), also under the name of *Sitôpâdi*. The latter work (IV. 4 [102], vv. 41-43), however, has also a longer recension of eighteen drugs, but reducing the sugar to twice as much as the rest of the powder. Some of these recensions substitute *Chavâ* (Cassora decurrata) for *Chôraka*.

(XII) The MĀTULUṄGA Pills.[22]

(29—34.) *Take* asafœtida, the three acrids[23], Pāṭhā (*Stephania hernandifolia*), habush, chebulic myrobalan, zodoary, Ajamôda (*Carum Roxburghianum*), Ajagandhā (*Seseli indicum*)[24], tamarind, Indian sorrel, (30) pomegranate, Pushkara[12], coriander[25], cumin, plumbago-root, Vachā (*Acorus Calamus*), the two carbonates (of potash and soda), the two salts (vida and sonchal)[26], and Chavya (*Piper Chaba*), and powder them together. (31) This powder may be taken, as an unfailing medicine[27], at the time of one's meals (lit., food and drink); it may be drunk either just before them or with them, or *simply* with warm water. (32) It is a remedy for severe pains in the side or in the heart or in the bladder, for tumours caused by excess of air or phlegm, for attacks of chronic diarrhœa or piles, for spleen, morbid pallor[7], and loss of appetite, (33) for costiveness, strangury, and diseases of the womb and the rectum, for obstruction in the chest, cough, hiccough, asthma, and stricture of the throat. (34) Or the same powder may be repeatedly macerated[28] in the juice of citrons, and then made up into pills of one karsha[9] or more.

[22] This formula, but under the name of *Hiṅgu-ādi* powder, is found identically in Ch., VI, 5 [68] (vv. 75-80), Chd., XXX, 21 [209], and V., XXX [93] (vv. 70-75). There are, however, the following differences: (1) all three have *madyena* for *bhaktena*; (2) Ch. and Chd. have *kāraṇāḍhi* 'efficacious' for *kārshikāṇi*; (3) V. has *pañcha-lavaṇam* 'five salts' for *lavaṇā dvi*. The reading *madyena* agrees also with the corresponding phrase *gharm-ambu-surā-manda* 'warm water and clear wine' in Charaka's shorter version of the formula (VI, 5 [68], vv. 65, 66). The reading *kāraṇāḍhi tatō'dhikam* would mean that the pills, thus made, are 'efficacious even more than when the powder is used in the other way.' Both readings give good sense. The same formula, in another recension, in śloka verses which arranges the ingredients in a different order, is given in Śā., II, 6 [52]. A third recension, again arranging the ingredients in a different order, is found in V., XXX [93] (vv. 76-78) and BhP., II, 3 [38]; in the former, under the name of *Dvitīya-hiṅgu-dīpikōkta* 'a second Hiṅgvāṣṭi powder.' This recension is in the Śārdūla Vikrīḍita metre, but it has an appendix in the Vasanta Tilakā metra, which states that 'this is the original (*ādya*) Hiṅgvāṣṭi formula, as given in the Āśvin-Saṁhitā.' It would follow from this remark that the recension given in our Manuscript is a later re-cast of the formula. A fourth recension in prose, and arranging the ingredients again differently, is given in Ś., IV, 5 [68] (§37) SY., XXX, 1 [108], and V., XXX [93]. The latter adds to it the remark *iti hiṅgvāṣṭi-sañjñā-prakāraḥ saṁkṣiptōktaḥ*, i.e., 'this is a revised version of the formula for Hiṅgvāṣṭi pills.' Suśruta, moreover, states that the pills are to be made *akṣha-mātrā*, i.e., 'of as much as an *akṣha*.' An akṣha is the same as a karsha (see *ante*, note 9), and this, therefore, supports the reading *kārshika* of our Manuscript. A fifth recension in triṣhṭubh verses, and once more re-arranging the ingredients, occurs in AH., IV, 14 [93] (vv. 29-33). It uses the expression *kāraṇatarā* or 'more efficacious' for *kāraṇāḍhi tatō'dhikam*. A sixth recension, in Śārdūla Vikrīḍita verses, like the original, but re-arranging the ingredients, is found in the HS., III, 7 [102], where the pills are directed to be made of the weight of a *kāṅkāyaṇa*, i.e., a karsha. In all these recensions the formula consists of nineteen ingredients; but, besides, it occurs in several variants, of more or less than nineteen ingredients. Thus, there is in Ch., VI, 5 [68] (vv. 65,66), S., VI, 42 [68], (vv. 20, 27), AH., IV, 14 [93] (vv. 9, 10), a shorter variant, consisting of seventeen ingredients, and also called the Hiṅgvāṣṭi powder. In another recension this shorter variant is given in BhP., II, 2 [32]. On the other hand, HS., III, 7 [102] gives a longer variant, which is called the *Vṛihad-hiṅgu*, or 'great Hiṅgu' powder, and which contains twenty-eight ingredients.

[23] See Part I, note 55. See also S., I, 38 [40] (in Dutt's Translation, p. 171, No. 29) and BhP., I, 1 [32].

[24] In the very similar formula below, verses 80-84, we have *jaradā* and *kṛishṇājagandha* apparently as equivalents of *ajamōdā* and *ajagandhā*. On the identity of the latter there is much uncertainty. See Phar. Ind. II, 116, 117, Mat. Med., p. 172, Med. Dict.; also Chakradatta's commentary (col. p. 441) and Gangādhar's commentary (p. 154) on Charaka, as well as Śivadāsa's commentary on Chakradatta. The latter identifies *ajamōdā* and *ajagandhā* with the wild and cultivated varieties respectively of *gandal*.

[25] In the same formula, verses 80-84, we have *kustumburu* instead of *dhānya*, which settles the identity of the latter with coriander. See *ante*, note S.

[26] All three expressions *lavaṇā dvi*, *lavaṇa-trayam* and *pañcha-lavaṇam* are used in different recensions or variants of this formula. The first of these terms means the Vida and the Sonchal (*sauvarchala*) salts, see below, verse 80, also Ch., VI, 5 (v. 65); the second, these two with the addition of rock-salt (*saindhava*); the third these three, together with sea-salt (*sāmudra*) and sambar-salt (*rōmaka*); see Mat. Med., pages 84. Opinions, however, differ. Śivadāsa, in his commentary on our formula in Chakradatta, identifies the two salts with sonchal and rock-salt; so also Gangādhar in his commentary on Charaka (v. 65); also the Med. Dict. On the other hand, in Part III, verses 31, 32 *vṛiṣa* and rock-salt seem to be intended as the "two salts."

[27] *Anupayōga* appears to be a synonym of *nirāyāsya*, which occurs below, in v. 927, in the sense of unfailing in its effects.

[28] On the process of *bhāvanā* or 'maceration,' see Mat. Med., p. 11, and Wise, p. 130. It consists in reducing drugs to powder, soaking them in some expressed juice or decoction during the night, and drying them during the day in the sun. It is completed in twenty-four hours, but generally repeated from three to seven times and sometimes with a variety of fluids. In the present case the commentary in the Chakradatta (see note 22) explains 'repeatedly' to mean 'seven times,' or on seven consecutive days. See note 177.

(XIII) The LAGUḌA[39] Powder.[40]

(35—37.) Take equal parts of the three acrids[23], Tiktarôhiṇi (*Picrorrhiza Kurroa*), barley-corns, chiretta, and Śatakratôr-yava (seeds of *Holarrhena antidysenterica*), two parts of plumbago-root, and sixteen parts of the bark of Kuṭaja (*Holarrhena antidysenterica*), (36) powder *the whole* very finely, make it into a paste[30] with half a pala[5] of treacle, and drink it with cold water. This is a remedy against fever, morbid secretion of urine, swellings, loss of appetite, unhealthy menses, abdominal tumours, and morbid pallor.[7] (37) Whatever other diseases, complicated[31] with *disorders of the* bile and phlegm, there are among much-suffering mankind, all these are cured by the administration of this most excellent powder, a favourite of Âtréya, known as the Laguḍa.

(XIV) The NAVÂYASA Powder.[32]

(38 and 39*a*.) Take three parts of the three myrobalans[24], and three parts of the three acrids[23]; also one part each of plumbago-root, Musta (*Cyperus rotundus*) and baberang, and add nine parts of iron.

Second Leaf: Reverse.

(39*a*) This makes the Navâyasa powder, which is a remedy against morbid pallor[7] and swellings.

(XV) A Medicine for the relief of Throat-diseases.[33]

(40.) Equal parts of *Râsnâ (*Vanda Roxburghii*), sonchal-salt, Bhadramustâ (*Cyperus rotundus*), soot[34], the three acrids[23], carbonate of potash, and zedoary, made up into a powder, may be prescribed *for the relief of throat-diseases.*

[39] *Laguḍa* is said, in BhP., I, 1[169], to be a synonym of the red-flowered variety of the *Karavîra* (*Nerium odorum*), and it is thus quoted in the abridged Petersburg Dictionary. But this certainly does not agree with the use of the word in our formula. The name of a prescription, if taken from one of its ingredients, is always taken either from the first-named or the most prominent of the drugs comprised in it; see the rule in the Pariśiṣṭaśeṣa Prudîpa, quoted in Med. Dict. under *yôga*. Now, *Laguḍa* cannot be the name of the three acrids; it can, therefore, only be a synonym of *Kuṭaja*.

[40] *Piṇḍa* is a lump of paste, or dough; see below, v. 647, where the parallel passage in Ch., VI 10[663] has *piṣṭa*; it also occurs below, v. 831.

[41] On *anuchandha*, complication, see Ch., III, 8[190].

[42] This is a favourite iron tonic, which under the name of *Navâyasa-chûrṇa* or *Navâyasa-lauha* or *Lôha-chûrṇa* is found in all medical works. It consists of eighteen parts, *i.e.*, 9 parts of iron and 9 parts jointly of the other ingredients. The formula occurs in our Manuscript in its shortest form. In another recension it is found in Ch., VI, 20[160] (vv. 68-69), SY., VIII, 9[128] and Chd., VIII, 8[179]. In this recension directions are added as to the treatment of the powder; it is to be "eaten" (*bhakshyatê*) in the form of a confection "made up with honey and clarified butter." A third recension in prose is given in S., IV, 12[447] (§ 5). A fourth, fifth and sixth recensions are given in AH., IV, 16[407], (vv. 14, 15*a*), V., VII[158] (vv. 97-100) and Śâ., II, 6[228]. These direct that the powder may be taken either as a confection made up with honey and clarified butter or as a draught taken with cow's urine and buttermilk. A seventh similar recension is given in HS., III, 8[169], where the preparation is called a *ratnâka* or 'bolus.' Here, however, only "one part" (*bhâgamêkam*) of iron is to be taken; this may be a false reading. Ch., VI, 20[681] (vv. 76-84) contains a much longer variant of this formula, called the Yôgarâja, which, however, curiously enough, commences with the identical hemistich that begins the Navâyasa formula in our Manuscript. This longer variant is also given in Chd., VIII, 9[178], and, in a different recension, in AH., IV, 16[40] (vv. 20*b*-23*a*). This formula is given under the treatment of *pâṇḍu* or 'morbid pallor,' in all medical works except Suśruta, which has it with reference to *prameha* or 'morbid secretion of urine.' In the chapter on *pâṇḍu*, however, S., VI, 44[503] (vv. 15*b*, 16*a*) gives a short variant, under the name of *Ayôrajas* (or 'powder of iron'), referring at the same time (according to the commentator) to the previously given Navâyasa powder by the phrase *śâstra-pradarśi-dhâkhilôkta-krama yôgân*, i.e., 'formulas prescribed in this text-book.'

[43] I have not been able to trace this formula anywhere; nor am I certain as to the correctness of the reading and translation of the phrase *vhaṣi chêt sandahêt*. There is, however, a general direction in S., IV, 22[93] (v. 5) and V., LXIII[280] (v. 21) that in mouth diseases the three acrids, carbonate of potash, as well as of soda, and the Vida salt may be applied. Compare also the formula in Ch., VI, 26[597] (vv. 182, 183), SY., LVIII, 65, 66[828], V., LXIII[286] (vv. 197, 198) and Chd., LIX, 10[828].

[34] See Part I, note 56.

(XVI) Pills for curing Mouth-diseases.[35]

(41 and 42*a*.) Take equal parts, by weight, of rasôt[36], bark of Indian barberry[37], Têjavatî (*Piper Chaba*), and long pepper, and, having powdered *the whole*, make it up with water into pills, and hold these *in the mouth*. (42*a*) They relieve bleeding sores in the mouth, also obstruction and abscesses in the throat.[38]

(XVII) The AYÔRAJÎYA Powder.[39]

(43—55.) Mix together one kuḍava[a] of the three myrobalans[15], one kuḍava of long pepper, and two kuḍava (*i.e.*, one each) of baberang and black pepper; (44) then take one pala each of Dantî (*Baliospermum montanum*) and plumbago-root, also one pala each of the knotted root of long pepper and Kushṭha (*Saussurea Lappa*), (45) two pala of ginger, and three pala of Chavya (*Piper Chaba*). Further, add powders[40] made of half a pala of each of the following *drugs:* (46) *Râsnâ (*Vanda Roxburghii*), Balâ (*Sida cordifolia*), Gôkshuraka (*Tribulus terrestris*), liquorice, deodar, Vachâ (*Acorus Calamus*), Prativishâ (*Aconitum heterophyllum*), Pâṭhâ (*Stephania hernandifolia*), Mustâ (*Cyperus rotundus*), Kaṭukarôhiṇî (*Picrorrhiza Kurroa*), (47) Kaṭphala (*Myrica sapida*), the two Śarivâ[41], Syâmâ (black variety of *Ipomoea Turpethum*) and Bhallâtaka (*Semecarpus Anacardium*), Punarnavâ (*Boerhaavia diffusa*), Têjavatî (*Scindapsus officinalis*), cinnamon bark and leaves, Śatâvarî (*Asparagus racemosus*), (48) Nichula (*Barringtonia acutangula*), Trivṛitâ (white variety of *Ipomoea Turpethum*), *Bhârgî (*Clerodendron Siphonanthus*), and bark and seeds of Kuṭaja (*Holarrhena antidysenterica*). Make these ingredients of the medicine into fine powder, (49) and add pulverized iron, in quantity twice as much as that *powder*. Then, putting the whole together, make it up with honey into a linctus. Of this a suitable quantity may be

[35] I can find no identical formula; but there are several variants. The nearest are in Ch., VI. 26[132] (v. 176, 177) which adds four, and in SŚ., LVIII. 69[439], Chd., LIX. 13[479] and V., LXIII[147] (v. 201) which add two other drugs to the ingredients here mentioned.

[36] See Part I. note 87.

[37] *Dâruharidrâ-tvacha* is one ingredient, root-bark of Ind. barb. The parallel in Charaka has *dârvîtvaṅ*, and the AS., VI, 26[324] (l. 4, 5) *dârvî-tvak* is prescribed, with other drugs, for pills in diseases of the mouth.

[38] On *mukha-pâka*, suppuration of the mouth, see AH., VI, 21 (vv. 58, 59). *Kaṇṭha-vidâhâdi*, as the name of a disease, is not mentioned in any Sanskrit dictionary. It may be a variant of *vidâhâdi*, abscess; in that form the word is the name of a "minor disease" (abscess in groin and axilla', see Nid., p. 153. The Yôgânî of a disease *vidâhi* is mentioned by Hêmâdri in his Chaturvarga Chintâmaṇi (Bibl. Ind. ed.), Vol. II, p. 102. Both *gaṇa* and *kaṇṭha* signify the throat, or neck; but *gaṇa* indicates, more particularly, the alimentary, and *kaṇṭha*, the respiratory canal (*kaṇṭhanâdî*, windpipe). Hence *gaṇa-graha*, obstruction in swallowing, may refer to mumps (parotitis), and *kaṇṭha-vidâhâdi*, to quinsy or perhaps croup. In severe tonsilitis abscesses may form. Two forms of angina, or cynanche, are intended.

[39] *Ayôrajîya* means 'containing pulverized iron.' I cannot trace this formula, in the recension here given, in any other medical work. In these it seems to be broken up into several distinct formulas, one of which, called the Yôgarâja (or 'king of formulas'), actually commences with the identical hemistich, which begins the Navâyasa formula (vv. 38, 39*a*) in our Manuscript. This Yôgarâja formula is found in Ch., VI, 20[101] (vv. 76-84) V., VII[320] (vv. 41-47), Chd., VII, 5[170], and AH., IV, 16[108] (vv. 20*b*-23*a*). In Charaka it is followed by several short formulas, each of which contains, as ingredients, *ayôrajas* or "powder of iron," together with a number of the other drugs mentioned in our formula. In S., VI, 44[319] (vv. 155, 16*a*) it seems to be referred to in the short formulas there given (see *ante*, note 32).

[40] *Pâkya* or *pishṭa*, pulverised, may signify either 'dry powder' (*chûrṇa*) or 'powder made into paste' (*kalka*); but more usually the latter. AH., V, 6 (v. 10) explains the difference to be that a drug ground in a moist condition (*śuṣkita*) is *kalka*, but unmoistened (*aśuṣka*) is *chûrṇa*. Herowith agrees Śâ., II, 5 (v. 1) and 6 (v. 1), and BhP., I, 2[73] (also Mat. Med., p. 9), which explain that a fresh (moist) drug ground on a slab of stone (*śilâpishṭa*) without water (*toakâ*), or a dry drug ground with water makes *kalka*, or paste; while an entirely dry drug, well ground and passed through a cloth-sieve, makes *chûrṇa* or powder. AS., (V, 8[167], l. 19). explains rather differently that a drug ground on a stone or with a toothed instrument, makes *kalka* or coarse powder, but when passed through a very fine sieve, it becomes *chûrṇa*, or fine powder.

[41] *Śârivê dwê* or *Śârivâ-dwaya*, i.e., 'the two Śârivâ,' are the *Ananta-mûla* (Hemidesmus indicus) and the *Syâma-latâ* (Ichnocarpus frutescens). See Mat. Med., p. 195.

taken, and (50) afterwards a suitable quantity of milk should be drunk, but without taking any *solid* food. This is a well-tried alterative tonic, *which is* known by the name of Ayôrajîya (or 'made of powder of iron'). (51) By its annual use a person lives for a hundred rainy seasons; by taking it for two months, he lives for a hundred autumns.[42] (52) It destroys an angry swelling, just as Indra's thunderbolt destroys a tree; it cures morbid pallor[2], piles, dyspepsia, worms, (53) fistula in ano, jaundice, diseases of the skin, and enlargements of the abdomen, spleen, abdominal tumours, epilepsy, severe abdominal pains, and gripes. (54) Indeed, in whatever disease this Ayôrajîya powder is used, that it cures at once, just as the thunderbolt destroys the enemies of the Dêvas. (55) The after-diet should consist of powder of parched grain, mixed with honey,

Third Leaf: Obverse.

taken as a linctus,

and followed up with a draught of milk, and should be *continued* for seven or eight days.

(XVIII) The TIKTAKA Powder.[43]

(56—58*a*.) Take equal parts of Mustâ (*Cyperus rotundus*), cardamoms, white sandal, Uśîra (*Andropogon muricatus*), lovage, the three acrids[23], Vatsaka (*Holarrhena antidysenterica*), the three myrobalans[44], Kaṭukâ (*Picrorrhiza Kurroa*), deodar, root-bark of Indian barberry, Parpaṭa (*Oldenlandia corymbosa*), bark of cinnamon, (57) Paṭôla (*Trichosanthes dioica*), nim, Shaḍgranthâ (*Acorus Calamus*), Mûrvâ (*Sanseviera zeylanica*), chirctta, Śigruka (*Moringa pterygosperma*), Trâyantî[45], Saurâshṭra (alum slate from Sûrat), small cardamoms, and Prativishâ (*Aconitum heterophyllum*), and powder them. (58*a*) This powder, known as the Tiktaka (or 'the bitter'), cures diseases of the heart, and tumours and severe pains in the abdomen, and heals any disorders due to a concurrent derangement of the three humours.[46]

(XIX) The VṚISHA-DVÂDAŚAKA Powder.[47]

(58*b*—59.) Long pepper, Ativishâ (*Aconitum heterophyllum*), asafœtida, dry

[42] In S., IV, 10[440] (§§ 9 and 10) it is also stated of the use of iron that it prolongs the life of men for one hundred years (*varsha-śatam jîvati* and *varsha-śat-âyuṣ-ka puruṣô bhavati*). In our formula, however, I do not quite understand the object of the doubly qualified repetition; for both *varsha*, 'rains,' and *śarad*, 'autumn,' practically mean 'a year.' The object may be to distinguish between two modes of taking it, both being equally effective towards prolonging life for a hundred years, *viz*., 1, taking it regularly every year, though not for any stated period; 2, taking it (daily) for a period of two months, though not every year. Or the meaning may be, to take it every year, that is, daily for a period of two months in each year.

[43] This formula is found in a practically identical form in the V., XXXI[401] (vv. 29 3*ia*). It differs only in reading *vilva-taik* for *phalaṁ tri* (see note 44), *yâdhi* for *mûrvâ* and *kêtara* for *sôkshmâ*. In a second recension, which rearranges the ingredients and adds *patra* or 'cinnamon leaves,' it is given in Ch., VI., 19[408] (vv. 136-139) and V., III[93] (vv. 81-84.) This recension commences with *Kirâtatiktâ* or 'chiretta,' and hence the powder is here called the Kirât-âdya. In a third recension, once more arranging the ingredient (incl. *patra*) differently, it occurs in AH., IV, 10[87] (vv. 34-37*a*). The last two recensions have *Padmaka* or 'Prunus padûm' for *Sôkshmâ*.

[44] I take the reading *phalaṁ tri* of the original text to be an error for *triphalaṁ* induced by the following *katvî* which suggests *trikatvâ*. But the latter reading is impossible, because the three acrids are already mentioned as *śuṇṭha*.

[45] On this drug see the Phar. Ind., vol. I, p. 23: "In Bengal and S. India the drug is unknown, and *Fiscus heterophylla* is used as a substitute." See also Mat. Med., p. 321.

[46] See Part I, note 59.

[47] This formula occurs identically in the V., V [108] under the same name of *Vṛisha-dvâdaśaka*. That name means 'that which consists of twelve ingredients inclusive of Vṛisha.' I cannot trace this powder in any other medical work, though there are many formulæ more or less resembling it; thus, in S., VI, 42[824] (v. 125), V., V [108] (v. 53) there is one, seven ingredients of which are the same as in our formula, though *Vṛisha* is not among them.

ginger, Indrayava (seeds of *Holarrhena antidysenterica*), Vachâ (*Acorus Calamus*), (59) Pâṭhâ (*Stephania hernandifolia*), Ajamôdâ (*Carum Roxburghianum*), Kaṭukâ (*Picrorrhiza Kurroa*), Vṛisha (*Adhatoda vasica*), sonchal-salt, and chebulic myrobalan. These twelve ingredients make the Vṛisha-dvâdaśaka powder, which is a cure for indigestion, costiveness, and severe abdominal pains.

(XX) SIDDHÂRTHIKÂ Pills.[48]

(60—62.) Take one kuḍava[a] of long pepper, one kuḍava of black pepper, six pala[s] of dry ginger, five pala of *Tâlisa leaves (*Taxus baccata*), (61) and one karsha[s] of small cardamoms. To these add half a tulâ[s] of treacle. Having powdered the dry ingredients, prepare pills weighing one pala each. (62) These pills, known by the name of Siddhârthika (or 'efficacious'), relieve phlegmorrhagic cough, distaste for one's food, irregular digestion, as well as indigestion.

(XXI) The VARDHAMÂNAKA Powder.[49]

(63.) Take small cardamoms, cinnamon, Nâgapushpa (*Mesua ferrea*), black pepper, long pepper, and dry ginger, in progressively increasing quantities[50], powder them and mix them with an equal quantity of sugar. This powder is a remedy for indigestion, abdominal tumours and enlargements, piles, heart-diseases, hiccough, asthma, pains in the side, and every kind of disorder of the throat.

(XXII) The SÛKSHMÊLÂ-VARDHAMÂNAKA Powder,[51] in 2 ślôka.

(64 and 65.) Small cardamoms, Surasa (*Ocimum sanctum*), asafœtida, tamarind, Indian sorrel, cardamoms, Tâmalakî (*Phyllanthus urinaria*), *Jîvâ (*Dendrobium multicaule*), zedoary, Pushkara[13], (65) and the root of Pushkara: these a physician should administer in cases of cough, asthma, hiccough, severe pains in the side, and disorders jointly due to air and phlegm.

(XXIII) The SAUVARCHCHAL-ÂDYA Powder.[52]

(66.) Sonchal-salt, Indian sorrel, long pepper, dry ginger, Vachâ (*Acorus Calamus*), asafœtida: these, drunk with warm water, are a remedy for severe pains in the heart and the abdomen.

[48] I have not been able to trace this formula anywhere, though, of course, similar formulas are plentiful; see, *e.g.*, one in Śâ., II, 6[122] (vv. 114-117, quoted in Mat. Med., p. 246), in which bamboo-manna and cinnamon are added to the ingredients of our formula. The proportions also are different.—*Siddhârtha* is a name for the white variety of mustard (*brassica fuscea*), but as this forms no part of the compound powder, the latter cannot be named from it.

[49] This is the second formula with that name; the other is No. X (vv. 25 and 26). In another recension it is given in V., V[106] (vv. 89, 90.) In a third recension it is found in AH., IV, 5[104] (vv. 54, 55*a*). In a fourth recension it occurs in V., IV[101] (v. 120) and XI[122] (v. 137), Chd., V, 92[121] and BhP., II, 2[19]. In this fourth recension the formula differs from the three others in giving the ingredients in the inverse order, and accordingly substituting *antyâdyârdhnah* for *âdi-bhâgs*. In all these recensions it is called the *Sama-śarkara* or *Śarkarâ-sama* powder.

[50] *Sama-dhṛitaiḥ* in the original is an error for *krama-dhṛitaiḥ*, as shown by the fourth recension; see note 49.

[51] I cannot find any formula, exactly like this, elsewhere; but the following may be compared in S., VI, 45[103] (v. 126), SY., XXVI, *ab*[107], V., V[108] (v. 53*a*) or XXVI[443] (v. 195) XXI[428] (v. 43), and AH., IV 21[128] (v. 31*b* and 36).

(XXIV) A powder for Medicating Liquor.[52]

(67—70.) Take two karsha[9] (*i.e.*, one each) of the seeds of Kuṭaja (*Holarrhena antidysenterica*) and long pepper, one and a half pala of Madhurasâ (*Sanseviera zeylanica*), one pala[9] of Pâṭhâ (*Stephania hernandifolia*), two pala of ginger, (68) one karsha each of sonchal-salt and the alkaline ashes of barley straw,

Third Leaf: Reverse.

and half a karsha of . . ., and powder *the whole* finely. (69) Of this one may drink a mârjâra-pada[9] with clarified butter or rice-gruel, or, if one is accustomed to spirituous liquor, he may stiffen[53] it with a liquor and then drink it. (70) This is a remedy against indigestion, spleen, morbid secretion of urine, morbid pallor[7], fistula in ano, and piles, if taken in the form of a medicated liquor.[54]

(XXV) The Śârdûla Powder,

in 4 ślôka.

(71—75*a*.) Take one part of asafœtida and two parts of Vachâ (Acorus Calamus), add three parts of viḍa-salt, four parts of ginger, (72) five parts of lovage, six parts of chebulic myrobalan, and seven parts of plumbago-root, and make the whole into fine powder. (73) When finely powdered, it may be taken with clear spirits of rice, or with some other intoxicating liquor, or *simply* with warm water. (74) This powder cures abdominal tumours, promotes the appetite, relieves piles, severe abdominal pains, cough asthma, and costiveness. (75) It is a most excellent powder, composed by Âtréya and known by the name of Śârdûla (or 'plumbago-root').

(XXVI) The Mâtulunga Pills of the Aśvins.[55]

(75*b*—77*a*.) Take one pala[9] of sonchal-salt, twice as much of Indian sorrel, (76) four times as much of cumin, and eight times as much of black pepper. These make

[52] This formula is called a *Châṇḍrâriṣṭa*, which means 'an *ariṣṭa* made with a powder.' *Ariṣṭa* is medicated spirituous liquor, prepared from honey and treacle with the addition of medicinal drugs, the whole being steeped in water and allowed to ferment. There are, however, two kinds of medicated liquor, *ariṣṭa* and *âsava* (see below, v. 403). The liquor is called *ariṣṭa* when unboiled drugs are used in the preparation of it, and *âsava*, when a decoction of the drugs is used. See Śâ., II. 10, v. 2, BhV., II. 26[35] and 29[37]; also Mat. Med., p. 13. See also Part I, note 39. For another formula of a *Châṇḍrâriṣṭa* see below, vv. 104-107. —I cannot trace any formula identical with ours anywhere.

[53] *Âtâḍana* is explained in Med. Dict. to mean mixing (*miśraṇa*), or stiffening, fortifying (*saṁdîpana*). In the latter sense, *dîpâḍga* is used here. It means, however, also to thicken by stirring (*dîpâkaraṇa*); so below in v. 304, and in AH., VI. 39, v. 170.

[54] Verse 70*b* is short by one instant; probably read, prakritically, *âriṣâkṣi* for *âriṣṭâni*.—*Prayôjitam* is emphatic "by the regular, or habitual use"; so also in v. 275; and similarly *prayôjit* in v. 462.

[55] *Śârdûla* is a synonym of *Châtraka*, the largest ingredient; hence the name of the powder. Another synonym of *Châtraka* is *Agnimukha*, and under this name the same formula is given in SY., VI. 27-32[358], V., V[36] (vv. 56-60) Chd., VI. 17[384] and Mat. Med., p. 181. In these works, however, eight parts of *Kuṣṭha* (Saussurea Lappa) are added as an eighth ingredient; nor is the composition ascribed in them to Atréya. But that the formula is really the same is shown by the name *Agnimukha*, which proves that it originally ended with *Châtraka*, and that the addition of *Kuṣṭha* is of a later date. Probably our Manuscript gives the composition as originally made by Atréya; and the name of the author was dropped in the later works which added *Kuṣṭha*. In a third recension the formula is found in AH., IV, 14[352] (v. 36). Here, however, *Châtraka* is replaced by *Vâtyâ* (i.e., *Bâlâ* or Śida cordifolia); and accordingly the name Śârdûla is differently explained to mean either a *siṁha*, or 'lion' (because the powder is strong like a lion), or as the Śârdûlavikrîḍita metre (because the formula is composed in that measure). This, however, is obviously a mere shift.

[56] The name means 'Citron-pills composed by the Aśvins' (see below, note 126). This formula is given in the Chd., XXIII, 11[393], but in a shorter recension, running thus: "Take sonchal, tamarind, cumin, and black pepper in successively doubled quantities, powder them and make them up with citron juice into pills that cure abdominal pains due to disordered air." Tamarind is substituted here for Indian sorrel, and the reference to digestion is omitted.

into pills with the juice of citrons. (77*a*) They will keep the digestion in good condition, and cure abdominal pains due to *deranged* air.

(XXVII) The Sour MÂTULUNGA Pills.[59]

(78 and 79.) Take the juice of citrons and śukta[57], the three acrids[23], Indian sorrel, viḍa-salt, lovage, rock-salt[58], and sonchal-salt, and make *the whole* into pills. (79) These may be drunk to relieve piles and to cure severe pains in the heart and the side, attacks of costiveness, diarrhœa, loss of appetite, and abdominal tumours caused by *deranged* air.

(XXVIII) Other MÂTULUNGA Pills of the Aśvins,[60]

in 5 ślôka.

(80—84.) Take plûmbago-root, the three acrids[23], Pushkara[13], asafœtida, Indian sorrel, viḍa-salt and Aśvagandhâ (*Withania somnifera*), also coriander-seeds, Vachâ (*Acorus Calamus*), pomegranate, sonchal-salt, and fresh carbonate of potash, (81) Add to this an equal quantity by weight of fresh lovage, black cumin, saffron, Amarajâ (inferior *Acacia Catechu*), and cumin-seeds. After being well-dried in the glare of the sun, make the whole of the ingredients[60] into powder, and add to it an equal quantity of the juice of citrons in a diluted state. (82) Having been thus steeped in the juice, rub it into a paste, and make it up into pills of the weight of a badara.[3] One of these the patient should take the first thing in the morning with some medicated liquor, or with honey, or liquor of honey, or śârkara[61], or he may take it with spirits of rice, or

Fourth Leaf: Obverse.

with curds, or with whey. (83) Cough, asthma, long-standing morbid pallor[2] severe spleen, abdominal pains, severe costiveness, hiccough, heart-diseases, apathy, salivation, acute diarrhœa, painful abdominal tumours, (84) cholera, tympanitis, weak digestion, dysentery, inflammation of the anus, and piles: all these diseases are relieved by these pills, if given as directed; they are also an excellent remedy for syncope[62], if administered with hot water.

(XXIX) The GULMA Powder of the Aśvins.[10]

(85 and 86.) Take one dharaṇa[3] each of Pâṭhâ (*Stephania hernandifolia*), seeds of

[57] On *śukta* see Part I, note 27. For a different recipe see IlhP., I, 2[42] and 5[5], II, 11[57] (vv. 7*b*, 8*a*), quoted in the larger Petersburg Dictionary, under *śukta*.

[58] *Lavaṇa-ditam-dîkṣa*, lit. 'that which is known as the best salt.' *Lavaṇa-ditama*, 'best salt,' is a name for rock-salt, commonly called *sindhava*; see the commentary to Chd., V, 20[192] and AH., IV, 8[208] (v. 161).

[59] I have not been able to trace this formula, as it stands here, elsewhere; but it is practically the same as the formula in verses 29-34. It appears in other works to be broken up into several distinct formulas, the chief of which is found under the name of *Tumburâdya-cûrṇa*, or 'the powder made of Tumbura and other drugs,' *Tumbura* being either the same as, or similar to, *Kustumburu*. See V., XXVI[403] (vv. 81-84, also vv. 85 and 79, 80, 100, and v. 14). AH., IV, 21[429] (vv. 35-37*a*). Śâ., II, 6[191] (vv. 92-93), quoted in Mat. Med., p. 204. See also Ch., VI, 9[241] (v. 107 ff.).

[60] The construction in v. 81*b* is rather awkward; but *sasâkhâ-dâhau*, lit., having its parts put together, refers to the whole of the preceding ingredients.

[61] *Śârkara* is a kind of liquor made from a watery infusion (tôya) of Woodfordia floribunda (*dhâtakî*) and sugar, see AH., I, 5 (comm. to v. 73), and Med. Dict., s. v. *Śârkaramadya*.

[62] *Tamas* is unconsciousness, or loss of consciousness, and is always mentioned as the first and main symptom of *mûrchâ*, syncope or swoon, and of *apasmâra* or catalepsis; also as occurring in severe cases of asthma (see below vv. 424, 941, and *tamâ-śvâsa* in vv. 118, 479, also note 239. See MN., 121-122, S, VI, 46[275] (v. 4). It is also called *tamaka* Ch., VI, 1[423] (v. 30), AH., IV, 3 (v. 70). But the construction of our verse and the mention of *tamaḥ* are awkward, and the reading would seem to be corrupt.

Kalinga (*Holarrhena antidysenterica*), Mustaka (*Cyperus rotundus*), Rôhiṇî (*Picrorrhiza Kurroa*), and Ativiṣhâ (*Aconitum heterophyllum*), add turmeric equal to four dharaṇa[83] and drink this powder with the urine of a cow. (86) It removes from the body the thirty-six kinds of skin-diseases, and destroys the seven grounds of rapid consumption[84]; it also cures abdominal tumours, if taken for one month, removing them all, if the patient diets himself especially on clarified butter and meat.

(XXX) The MÂGADHA Powder.[10]

(87—95.) Take equal parts of long pepper, viḍa-salt, and the carbonates of potash and soda, also of ginger, black pepper, and rock-salt, (88) also of lovage, Dantî (*Baliospermum montanum*), turpeth-root, Vatsaka (*Holarrhena antidysenterica*), sonchal-salt, cumin-seeds, and the three myrobalans, (89) and make them all into fine powder. This will make a most excellent preparation of powder if well macerated in the urine of a cow. (90) Of this a dose of one viḍâla-pada[9] should be given with warm water to a patient, after he has taken some greasy food and thereby greased his bowels. (91) If, having well digested it, he becomes thirsty, he may be allowed to drink a lixivium of Ghṛitagandhâ (*Prosopis spicigera*)[85] with the juice of pomegranates; (92) then he will be rendered quite comfortable; and if, on this being digested, he should become desirous of food, (93) he may partake of a mild stimulative, consisting of red rice well-boiled together with the broth of game distinctly seasoned with vinegar and salt. (94) In the case of cholera, piles and other diseases, of difficult digestion or indigestion, also of morbid pallor', (95) abdominal tumours due to *disordered* air, and chronic diarrhœa, if this prescription is made use of, the patient will obtain relief.

(XXXI) The HARIDRÂ Powder of the Aśvins.[10]

(96—101.) Take equal parts of the two Haridrâ[86], black pepper, lotus, Kushtha (*Saussurea Lappa*), long pepper, root of the cotton plant, Mâṁsî (*Nardostachys Jatamansi*), and carbonate of soda, (97) and rub these eight ingredients into a paste on

[83] *Chaturtha* in *chaturtha-dharaṇa* probably stands for *chaturguṇa*, just as *ashṭama* for *aṣṭa-guṇa* in v. 76. The reading should have been *chaturthaṁ dharaṇaṁ*, but this would not have suited the metre. See note 9.

[84] This is a puzzling passage. The text is imperfectly preserved, but the reading of the number 36 (*shaṭtriṁśat*) is practically certain. The only class of diseases of which I can find thirty-six enumerated, are the *kshudra-roga* or 'minor diseases.' Of these AH., VI, 31[85] (v. 33b) enumerates thirty-six, all of which may be roughly described as 'skin-diseases.' Charaka does not treat of them as a class at all, while S., II, 13[108] (§ 1) enumerates forty-four, and the Nid., p. 192, has forty-three, including some which are not skin-diseases. Another possible explanation, however, is suggested by Prof. Jolly, in vol. LIII, p. 380 of the Journal ASB. The usual number assigned to the skin-diseases (*kushṭha*) is 18, *viz.*, 7 great (*mahâ*) and 11 minor (*kshudra*); see S., II, 5[36] (cl. 2), Ch., II, 5[229] (cl. 3), MN., XLIX, 1[36]. The same number 18 is also assigned to certain diseases of the penis, called *Śâka*; see S., II, 14[34] (cl. 1), MN., XLVIII, 1[36]. For this reason, as the commentator Śrîkaṇṭhadatta explains, the *Śâka* and *kushṭha* diseases are treated by Mâdhava in two consecutive chapters MN., XLVIII and XLIX, and S., L. and LI. It may be that for a similar reason, the two sets of diseases, amounting to 36, are classed together in our Manuscript. The *mahâkshaya* I take to be the same as what is usually called *râjya-yakshma* or 'phthisis' (Nid., p. 62). It is described as 'arising from the waste of the seven elements' (*dhâtu-kshaya-janita*, Nid., p. 62). These seven 'elements' or *dhâtu* (see *ante*, p. 16, note 34) are here apparently referred to by the term *sthâna* or 'ground.'

[85] This is conjectural. The reading of the text is perfectly clear; but I cannot find the word *avakshâra* in any dictionary or medical work; nor does it seem to be known to modern Kaviráj's. There may be an error in the text; and *yavakshâra* 'carbonate of potash' or *avi-kshîra* 'ewe's milk' suggests itself. The Kaviráj whom I consulted suggested *ajakshîra* or 'goat's milk' But the pronoun *tasyâḥ*, in the sequel, seems to show that only one thing, and that of the feminine gender, is intended. Hence I prefer to take *ghṛitagandhâm-avakshâram* to mean one thing only, and *avakshâra* to mean a 'lixivium,' or a solution of alkaline salts from the wood-ashes of Prosopis spicigera.

[86] See Part I, note 80.

a grindstone. Then make *the paste* into pills equal to a kôlâsthi[3] and dry them in the shade. (98) One pill made of this powder may be given with warm water.

Fourth Leaf: Reverse.

Now, hear the different kinds of diseases which may be cured by it: (99) indigestion, retention of discharges, strangury, angina, costiveness, abdominal tumours due to *deranged* air, and *the effects of* spider's poison. (100) It also cures *the effects of* impaired poison[27] and of a scorpion's sting, and relieves flatulence, epilepsy, and sterility. (101) seizure by evil spirits, madness, and complex labour. In the case of injury by any poison, whether from teeth or roots[87], it may be used as a draught or as an ointment.

(XXXII) The GAUDIKA Pills.[10]

(102 and 103.) Take zedoary, Vachâ (*Acorus Calamus*), Tâmalakî (*Phyllanthus urinaria*), long pepper, ginger, and treacle, fry *the whole* with clarified butter, and make it into pills. (103) With this may be cured spasms in the chest, catarrh, pains in the sides, heart and abdomen, and dry cough, even when they are of an aggravated character.

(XXXIII) Another Powder for Medicating Liquor.[28]

(104—107.) Take two hundred (pala[3] of) black pepper, and one hundred (pala) of lovage and long pepper, also one pala each of sugar and good dry ginger, and one karsha[6] each of (105) tamarind, pomegranate and clean jujube. To these add one karsha of cinnamon, half a karsha of cumin, (106) one karsha of Indian sorrel, half a karsha of sifted coriander, and one karsha of sonchal-salt. These together make a most excellent powder for medicating liquor. (107) This is a radical cure for piles; it also completely stops chronic diarrhœa, and relieves heart-disease, morbid pallor[7], cough, and asthma.

[87] *I.e.*, 'whether animal or non-animal.' On poisons see Ch., VI. 25 [22], V., LXX [82] (vv. 8, 47, 56), S., V. 2 [68] (vv. 1, 2, 20-31, 38), V., 3 [23] (vv. 1 ff.), AH., VI. 35 [47] (vv. 55, 56, 37, 48, 49). They are divided into *akritrima* or 'natural,' and *kritrima* or 'artificial' (v. 239). The latter is also termed *garo* (v. 250). Any thing when it has become spoiled by age or other causes, and hence has turned poisonous, is called *dûshi-visha*. The Bhâva Prakâsa alone differs by making both *garo* and *dûshi visha* sub-divisions of *kritrima* poison. The *akritrima* poisons are subdivided into *jangama* or 'animal' and *sthâ nara* or *sthâvo* or 'non-animal' (vegetable and mineral). The *jangama* poisons are also called *damshtrî-visha* or *damshtr-dâtta* or *damshtrî-ja*, i.e., 'produced in animals with poison-fangs'; and the *sthâvara* are also called *mûla-visha* or *mûlaja* or *moola*, i.e., 'produced in the roots.' They have these names, because in the enumeration of their sources, the poison-fangs of animals and the roots of plants are the first-mentioned in their respective classes (see Gangâdhar's comment on Ch., VI. 23, vv. 8, 9 [23]). It may be noted that the latter representative names are peculiar to Charaka and to formulas quoted from that work (*e.g.*, the Nârâyana powder in Ch., VI. 68 [68] (vv. 121-129), quoted in the AH., IV. 15, v. 14-21 [40]). *Garo* is explained in AH., VI. 35 [47] (vv. 48 40), and BhP., II, 4 [26] to be an unwholesome mixture made of the dirty excretions (*mala*) of men and animals, and administered by women to their husbands, and by courtiers to kings, in their food to gain their favour or avert disgrace; see also note 78.

[28] For another formula for a Churnâkrishta see vv. 67-70. This formula is only a slight variant of the formula, given previously under the name of Shâdava powder (vv. 14-17). The ingredients are the same; for *Mâgadhî* is here a synonym of *Vasâsî*; the proportions only differ in some of the ingredients, the most important difference being the reduction of sugar to one fourth, and the increase of dry ginger to four times its quantity in the Shâdava; for 1 pala = 4 karsha. With regard to the serial order of the drugs this formula most resembles the version of it in V., XIV [39] (vv. 26-28). On this and the other recensions of this formula, see *ante*, note 8.

THE SECOND CHAPTER: FORMULAS FOR MEDICATED CLARIFIED BUTTER.

(I) The AMṚTA-PRĀŚA Clarified Butter,[69]

in 11 ślōka and 1 pāda.

(Verses 108—119*a*.) I will now describe the ambrosia-like elixir, which increases the strength of men, the so-called Amṛita-prāśa (or Food of the Immortals), a most noble *kind of* clarified butter. (109) Take one prastha each of the juice of emblic myrobalan, Kshīravidārī (*Ipomoea digitata*) and sugar-cane, and similarly of the milk of a heifer (110) one prastha, and add one well-measured prastha of old clarified butter.[70] Throw in, also, pastes[69] made of one half pala each of the following drugs: (111) Rishabhaka[71], Riddhi[71] liquorice, Vidārigandhā (*Desmodium gangeticum*), *Payasyā (*Gynandropsis pentaphylla*), Sahadēvā (*Sida rhomboidea*), Anantā (*Hemidesmus indicus*), Madhūlikā (*Bassia latifolia*) and Viśvadēvā (*Sida spinosa*), (112) both Mēdā[71], Rishyaprōktā (*Sida cordifolia*), Śatāvarī (*Asparagus racemosus*), Mudgaparṇī (*Phaseolus trilobus*) and Māshaparṇī (*Teramnus labialis*), Śrāvaṇī (*Sphaeranthus indicus*), cowhage and Virā (*Uraria lagopodioides*). (113) Further add one kudava[a] each of raisins, dates, jujubes, and half as much each of walnuts, Tinduka (*Diospyros Embryopteris*) and Nikōchaka (*Alangium decapetalum*).

Fifth Leaf: Obverse.

(114) When *the whole* is found to be ready boiled, let it be strained, and then stand in a clean vessel, *and* when it has cooled, add one prastha of well-clarified honey, (115) and sixteen pala of choice powdered white sugar. Then take one half pala of black pepper and one pala of small cardamoms, (116) powder them finely, and, having sprinkled them *over the whole*, stir it with a ladle. Of this *preparation* a dose suited to the *patient's* power of digestion may be administered, (117) and when it is digested rice-milk, together with the broth of the flesh of land-animals, may be given. This Amṛita-prāśa is an excellent preparation for increasing the strength and colour of men; (118) it may be given in cases of weakness induced by consumption or ulcers, also to the old, the feeble and the young, also to those who are swooning from asthma[72], or suffering from hiccough. (119*a*) This *preparation of* clarified butter, being a composition of ĀTRĒYA is famed under the name of Amṛita (or 'ambrosia').

[69] This formula occurs in the Ch., VI, 16 [404] (v. 32 ff.) and AH., IV, 3 [222] (vv. 93*b*-100), in a somewhat expanded form, with a larger number of ingredients and slightly different proportions. In another, more contracted, recension, it is found in the V., X [187] (vv. 38-43) and BhP., II, 2 [32], which, while preserving the general character of the preparation and its main parts, alters most of the minor ingredients. The HS., III, 3 [122], and III, 9 [128], has two formulas under the name of Amṛita-prāśana, but neither of them shows any similarity with the formula in our Manuscript.

[70] *Śārada* is usually identified with *nūtana*, new, fresh, see Śabdakalpadrumas; but here it would seem rather to signify *purāna*, old, mature; for old clarified butter is supposed to be particularly efficacious; see Mat. Med., p. 283. *Śārada*, lit. autumnal, in the sense of old, occurs apparently only in the Rigveda; see M. Williams's Sanskrit Dictionary.

[71] See Part I, note 51.

[72] *Tāsayatas tvasatāṁ* is an awkward construction, choking from asthma; *tvasatām*, acc. sing. of *tvasatā*, condition of asthma, stands for *tvasatayā* or *tvasatāyām*. The root *tas* means to gasp for breath, hence to swoon, as in *tamas* fainting, loss of consciousness; see *mūrc*, note 62.

(II) The KALYÂṆAKA Clarified Butter,[73]

in 8 ślôka.

(119*b*—127*a*.) Priyangu (*Aglaia Roxburghiana*), Tagara (*Tabernæmontana coronaria*), Kushṭha (*Saussurea Lappa*), pomegranate, Êlâvaluka[74], (120) *Tâlîsa (*Taxus baccata*), Mêdâ[75], the three myrobalans[76], Kêsara (*Mesua ferrea*), the two Vṛihatî[76], blue lotus, deodâr, sandal, and the two Śârivâ[61], (121) the two Haridrâ[60], baberang, and flowers of Sumanâ (*Jasminum grandiflorum*), Dantî (*Baliospermum montanum*), Aṁśumatî (*Uraria logopodioides*), madder, Śâlaparṇî (*Desmodium gangeticum*). (122) With one aksha[9] (of each of the above drugs) boil one prastha of clarified butter in four times the *latter* quantity of water. As a beverage[77], this *preparation*, called Kalyâṇaka (or 'efficacious'), is the best of clarified butter. (123) It cures cough, asthma, nasal catarrh, tertian and quartan fevers, mania, ulceration, erysipelas, morbid secretion of urine, leprosy, (124) hiccough, vomiting, morbid pallor[7], swellings, suppression of urine, and all disorders of the semen in men and of the womb in women. (125) It also predisposes women to pregnancy, and destroys poisons.[78] In all cases of poisoning mentioned in connection with the formulas for powders, (126) and in cases of spleen, piles and abdominal tumours this *preparation of* clarified butter acts like ambrosia; it is a commonly used[79] means for producing strength and colour, and promoting the appetite. (127*a*) Ill-fortune also will be averted from a house in which this clarified butter is kept.

(III) The MAHÂ-KALYÂṆAKA Clarified Butter,[80]

in 5 ślôka and 1 pâda.

(127*b*—132.) Take Jîvaka[71] and Ṛishabhaka[71], Vîrâ (*Uraria lagopodioides*),

[73] There are twenty-six ingredients in this preparation; accordingly it is made up of 26 karsha of drugs, one prastha of clarified butter and 4 prastha of water. Owing to this large amount of water it is said to be a 'beverage' or *pânîya*, i.e., a weak kind of decoction (see note 77). In the Vangasêna, Chakradatta and Śârṅgadhara it is, therefore, named the *Pânîya-kalyâṇaka-ghṛita*.—The same formula, though in another recension, arranging the ingredients differently and increasing them to twenty-eight is found in Ch., VI, 14 [62] (vv. 46-53*a*), V., XX [35] (vv. 60-67*a*), Chd., XX, 10 [36] and BhP., II, 2 [38]; and also, but again in a slightly different arrangement of the drugs, in the Śâ., II, 9 [32] (vv. 36-41). In a third recension, also with twenty-eight ingredients, it is found in S., VI, 39 [21] (vv. 207, 211). In a fourth recension, with only twenty-six ingredients, it occurs in the AS., VI, 9 [13] (l. 21 ff.) and AH., VI, 6 [43] (vv. 265-31). The main points of difference with respect to the drugs, between the recension in our Manuscript and those in the other medical works, are two: 1, one of the two *Vṛihatî* (*viz.*, *Kaṇṭakârikârî*) is omitted in all the latter, which substitute three others (*viz.*, as a rule, *Vitâlâ*, *Kemuti* and *Padmaka* or *Bhûtavilâ*); and 2, instead of *Mâlâ* all the latter read *Êlâ*; see notes 75, 76. It is a favourite formula which is often quoted, see, *e.g.*, Ch., VI, 20 [63] (v. 41), AH., IV, 1 [33] (v. 155*a*), IV, 7 [38] (v. 104*a*), IV, 16 [47] (v. 1*a*), IV, 17 [49] (v. 14*a*).

[74] See Part I, note 70. In the Phar. Ind., II, 105, it is wrongly identified with *Vîluka*. The seeds, supplied to me by a native druggist, seem to be simply those of chickweed.

[75] See Part I, note 51. The aksharas *dâ*, however, is not distinct, and, as all other recensions (see note 73) read *âlâ*, it is possible that the reading in our text is intended to be *tâlîsam-âlâ*.

[76] *Vṛihatî-dvaya* or *dvi-vṛihatî*, 'the two Vṛihatî,' are *Vṛihatî* (Solanum indicum) and *Kaṇṭakârikârî* (Solanum xanthocarpum). They are also called *dvê Nidigdhikê*. See Mat. Med., p. 210, in the second formula quoted from Chakradatta.

[77] *Pânîya* is "a weak decoction prepared by boiling one part of medicinal substances in thirty-two of water, till the whole is reduced to one-half. This preparation is usually taken *ad libitum* for appeasing thirst or some such object," Mat. Med., p. 10. A synonym is *pâna*.

[78] *Gara*, in the plural, means 'diseases caused by poison.' According to U. C. Datt, Translation of Suśruta, p. 43, *gara* is chronic or slow poison. The commentaries give *kṛitrima* for it; see *ante*, note 67.

[79] *Prasâdaka* is puzzling. The Med. Dict. gives it as the name of an eye-disease of horses, which does not suit the present case; possibly there may be an error for *prasâdikâ*; for *dîpanîya* is usually employed with reference to *grahaṇî*, diarrhœa. I have taken it to mean 'prevalent,' 'much used;' but it is awkward. There is nothing corresponding to it in any of the parallels.

[80] A formula, under the name of *Mahâ-kalyâṇaka*, is given in most medical works, following, as in our text, immediately after the Kalyâṇaka. But it entirely differs from the formula in our text. The main point of difference is

*Kâkanâsâ (*Leea hirta*), and leaf-stalk of the lotus, (128) also Mudgaparṇî (*Phaseolus trilobus*), Mâhaparṇî (*Teramnus labialis*), Riddhi[71] and Mêdâ[72], further Mahâsahâ[81] (*Gomphrena globosa*), Kshudrasahâ[81] (*Citrullus Colocynthis*) and Kâkôḍî[83], (129) Abhîruparṇî (*Asparagus racemosus*), Hamsapadî (*Vitis pedata*), zedoary, and seeds of cowhage, nutmeg[83], dates, raisins, mango, and emblic myrobalan, (130) long pepper, ginger, treacle and sugar. A paste[84] made of all these should be put in milk, together with clarified butter,

Fifth Leaf: Reverse.

(131) and when boiled and strained, it may be drunk as a remedy against *many* diseases. It cures cough due to *disorder of* the air or phlegm, or to ulceration. (132) The Mahâ-kalyâṇaka (or 'the most efficacious') clarified butter is a cure for many diseases, and is a preparation of Âtrêya's, who taught it to the Mahâtman Agastya.

(IV) The TIKTAKA Clarified Butter,[85] in 4 ślôka.

(133—136.) Take half a pala[2] each of nîm, Paṭôla (*Trichosanthes dioica*), Indian barberry, Durâlabhâ (*Alhagi maurorum*), Tiktarôhiṇî (*Picrorrhiza Kurroa*), the three myrobalans[14], Parpaṭaka (*Oldenlandia corymbosa*), and Trâyamâṇa.[46] (134) Having boiled them in one âḍhaka[3] of water, till *the whole* is reduced to one-eighth *of its original quantity*, put in pastes made of half a karsha[5] each of sandal, chiretta, long pepper, Trâyamâṇa[46], (135) Mustâ (*Cyperus rotundus*), and seeds of Vatsaka (*Holarrhena antidysenterica*). When *the whole* is again boiled in six pala of fresh clarified butter, it may be taken as a potion. (136) It is an approved remedy against skin-diseases, fever, abdominal tumours, hæmorrhoids, chronic diarrhœa, morbid pallor[7], and swellings, erysipelas, pustules, scab, itch, and tumours of the feet.

that it takes twenty-one drugs from among those of the Kalyâṇaka, adds to them eight new drugs (thus making a total of twenty-nine), and lets the whole be boiled in a quadruple quantity of milk (in addition to the clarified butter and the quadruple quantity of water of the Kalyaṇaka). See Ch., VI. 14[157] (vv. 53-55a), V., XX[326] (vv. 87-69), Chd., XX, 12[285], AH., VI. 6[429] (vv. 32-34a). The eight new drugs are *Rishabhaka*, *Vîrâ*, *Mudgaparṇî*, *Mâshaparṇî*, *Riddhi*, *Mêdâ*, and *Kâkôlî*. They all occur in the formula of our text; but the remainder of the drugs in the latter are not repeated from the Kalyâṇaka, but are mostly new ones. The total number of drugs in the latter is only twenty-three. In S., VI, 39[273] (vv. 212-216) the Mahâkalyâṇaka agrees with the other medical works in repeating the same twenty-one drugs of the Kalyâṇaka, but for the rest the formula is different.

[81] In the list of drugs in S., I, 38[139], *Mahâsahâ* and *Kshudrasahâ* are identified by the commentators with *Mâshaparṇî* and *Mudgaparṇî* respectively (see Dutt's Translation, p. 157); but, as the latter two drugs are separately named in our formula, it seems clear that *Mahâsahâ* and *Kshudrasahâ* must here stand for different drugs.

[83] *Kâkôḍî* or *Kâkôlî* and *Kshîra-kâkôlî* belong to the so-called Ashṭavarga (see *ante*, Part I, note 51), the constituents of which are said to be unknown at the present day. As a matter of fact, however, two drugs are supplied in modern druggists' shops under these two names; but their identity is still not quite fully determined. *Kâkôlî* is suggested to be Lavunga scandens in the Phar. Ind., vol. I., p. 268, and Atalantia missionis by Col. Prain, Director of the Royal Kew Gardens. *Kshîra-kâkôlî* is, according to Col. Prain, the true bulb of Frittilaria Stracheyi.

[84] Our formula has here *phalam*, which I take to stand for *Jâtîphala*, 'nutmeg.' The same phrase, however, occurs also in verse 187 [4], where the reading is *Phalgu* (Ficus oppositi-folia).

[85] *Garbha* is used technically as a synonym of *kalka*, 'paste.' See, *e.g.*, Aruṇadatta's comment on AH., IV, 2[83] (v. 42), IV, 5[362] (v. 15), IV, 5[362] (v. 24), Chd., IV, 22, 23[135], *et passim*. In this sense I have not found it noted in any Sanskrit dictionary.

[86] This formula is found, identically, in Ch., VI, 7[153] (v. 137) V., LV[401] (vv. 178-181), Chd., L, 58[401], SV., LI, 75-78[379]. In another recension it occurs in AH., IV, 19[418] (vv. 25-7), and in a third recension in prose, in S., IV, 2[418] (§9). The main point in which the latter two recensions differ from the first are the proportions of the ingredients. Thus, the first recension directs 6 pala of clarified butter to be taken, and hence in Vaṅgasêna and Chakradatta it is called *Shaṭ-palatikta*. On the other hand, Ashṭâṅga Hṛidaya orders 12 pala, and the Suśruta orders even one prastha (*i.e.* 16 pala).—This is also one of the favourite preparations; thus it is quoted in AH., IV, 1[418] (v. 91), IV, 1[352] (v. 156a), IV, 10[52] (v. 44), IV, 14[386] (v. 62), IV, 18[433] (v. 9). Finally, the first portion of our formula forms a prescription by itself in S., VI, 39[273] (vv. 227-229).

(V) The MAHÂ-TIKTAKA Clarified Butter,[85] in 7 ślôka.

(137—143.) Make pastes of *the following drugs:* Saptachhada (*Alstonia scholaris*), Prativishâ (*Aconitum heterophyllum*), Śamyâka [87](*Cassia fistula*), Tiktarôhiṇî (*Picrorrhiza Kurroa*), Pâṭhâ[87] (*Stephania hernandifolia*), Musta (*Cyperus rotundus*), Uśîra (*Andropogon muricatus*), the three myrobalans[88], Paṭôla (*Trichosanthes dioica*), nim, Parpaṭaka (*Oldenlandia corymbosa*), (138) Dhanvayavâshaka (*Alhagi maurorum*), sandal, long pepper, Padmaka (*Prunus Puddum*), the two Rajanî[89], Shaḍgranthâ (*Acorus Calamus*), Viśâlâ (*Citrullus Colocynthis*), Śatâvarî (*Asparagus racemosus*), and the two Śârivâ[61], (139) seeds of Vatsaka (*Holarrhena antidysenterica*), Vâsâ (*Adhatoda vasica*), Mûrvâ (*Sanseviera zeylanica*), Amṛita (*Tinospora cordifolia*), chiretta, liquorice and Trâyamâṇa.[45] (140) Of these pastes take one-fourth as much, of water eight times as much, of the juice of the fruit of emblic myrobalan twice as much as the *ingredient* clarified butter; then, after boiling *the whole*, it may be taken as a potion. (141) This preparation will infallibly cure skin-diseases, bleeding piles due to *excess of* air and bile, erysipelas, hemorrhagia, leprosy, and morbid pallor[7], (142) boils, scab, mania, jaundice, worms, itch, heart-diseases, tumours, immature abscesses[90], unhealthy menses, and adenia, (143) but it should be taken at the proper time and in accordance with the *patient's* strength (of digestion). This is a grand *preparation of* clarified butter, unsurpassed by hundreds of other formulas, on account of the wide range of its applicability.[91]

(VI) The PANCHAGAVYA.[92]

(144—147.) Take one akshaˢ each of the two Haridrâ[93], madder, Pâṭhâ (*Stephania hernandifolia*), Kaṭukarôhiṇî (*Picrorrhiza Kurroa*), plumbago-root, baberang, long pepper, turpeth-root, Vachâ (*Acorus Calamus*), (145) Śârivâ (*Ichnocarpus frutescens*), Kushṭha (*Saussurea Lappa*), Musta (*Cyperus rotundus*), cardamoms, liquorice, and Śankhapushpî (*Canscora decussata*), and mix them with one prasthaˢ of each of the five products of the cow.[95] (146) This *preparation of* clarified butter, when boiled and taken as a potion, makes one strong and healthy, of a clear complexion, intelligent,

[85] This formula is found, almost identically the same, in Ch., VI, 7[13] (vv. 141-147), V., LV[101] (vv. 197-203), Chd., I, 61[113], SY., LI. 86-92[220]. In a second and third recension, distinguished only by slightly differing serial arrangements of the drugs, it occurs in Śâ., II. 9[181] (vv. 42-48) and AH., IV, 19[418] (vv. 8-11a). In a fourth recension, in prose, with a difference in the serial order and the proportion of the ingredients, it occurs in S., IV, 9[429] (§ 8). There is even a fifth recension, in ślôka verses, in S., VI, 39[72] (v. 212-226), but here there are thirty-three drugs instead of twenty-seven, out of which, however, twenty-six drugs are common to both recensions.—This, also, is one of the favourite and often prescribed formulas.

[87] *Śamyâka* appears to be the correct form, not *tampâka*, see the smaller Petersburg dictionary.—*Pâṭhâ* is erroneously cancelled in the original text; it occurs in all the parallels, and is required by the metre.

[89] *Dvi-rajanî*, 'the two Rajanî,' are the same as the two Haridrâ (see Part I, note 80).

[90] On *piḍaka*, see Part III, note 42.

[91] The other identical recensions (see note 86) have here a different reading: *yôga-śatair-apy-ajîtha-mahâ-vikâra-mahâ-sarpiḥ*, i.e., 'this grand clarified butter cures even such great diseases as could not be overcome by hundreds of other prescriptions.'

[92] I have not been able to identify this formula in any medical work. Most of them give a formula, under the name of *Pañchagavya* (or *Mahâ-pañchagavya*), but it entirely differs in the matter of drugs. Moreover, it is uniformly given as a remedy against *apasmâra* or 'epilepsy' a disease which is not even mentioned in our formula. The latter is rather of the nature of a *rasâyana* or *vâjîkarana*. See Ch., VI, 15[618] (vv. 16-21), V., XXI[343] (vv. 53-59a), SY., XXI, 18-23[38], Chd., XXI. 15[38], AH., VI, 7[471] (vv. 194-24a), S., VI, 61[289] (vv. 31-35).

[95] The *pañcha-gavya*, or 'five products of the cow,' are *kshîra* or 'milk,' *dadhi* (*dadhy-amla*) or 'curds,' *ghṛita* or 'clarified butter,' *mûtra* or 'urine,' and *kshîrî-rasa* or 'diluted dung.' See their enumeration in the *Saṭpa-pañcha-gavya*, or 'small Panchagavya' formula in Ch., VI, 15[618] (v. 15), V., XXI[343] (v. 52), Chd., XXI, 14[38], AH., VI, 7[471] (vv. 183-19a).

brilliant, and inexhaustible with women. (147) Through it speech becomes clear, sacred lore once acquired is never again lost, voice and colour is brought out, and barren women are predisposed to pregnancy.

Sixth Leaf: Obverse.

VIIth Formula.[89]

(148 and 149.) *Take* baberang, plumbago-root, Dantî (*Baliospermum montanum*), the three acrids[23], Vairiṇa (*Andropogon muricatus*), long pepper, Aśvamûtrî (*Boscellia serrata*), turpeth-root, Kshîrî (*Euphorbia neriifolia*), Nîlikâ (*Indigofera tinctoria*), rock-salt, and Vachâ (*Acorus Calamus*), (149) *and* boil them in one prastha[3] of clarified butter doubled by *the addition of* curds.[24] When done, *this preparation* may be drunk at discretion to cure asthma, hæmorrhoids, and abdominal tumours.

(VIII) The Shaṭpala Clarified Butter,[90]
in 2 ślôka.

(150 and 151.) *Take* one pala[2] each of long pepper, root of long pepper, Chavya (*Piper Chaba*), plumbago-root and dry ginger[26], also of carbonate of potash, *and* boil *the whole* in one prastha[3] of clarified butter, (151) together with one prastha of milk. This preparation will cure abdominal tumours characterised by *deranged* phlegm, remove chronic diarrhœa *and* morbid pallor[7], *and* heal spleen, cough, *and* fever.

(IX) The Tryûshaṇa.[27]

(152.) The three acrids[23], the three myrobalans[16], Mustâ (*Cyperus rotundus*,) baberang, Chavya (*Piper Chaba*), *and* plumbago-root. A paste, made of these *and* boiled in clarified butter with milk, makes a remedy against abdominal tumours due to *deranged* air.

(X) The Vâsâ Clarified Butter,[91]
in 2 ślôka.

(153 and 154.) Having minced Vṛiśa (*Adhatoda vasica*) with its twigs, boil it in eight times as much of water, till *the whole* is reduced to one-eighth *of its original*

[89] I have not been able to trace this formula anywhere; nor am I satisfied regarding the correctness of some portions of the text.

[24] That is, they should be boiled in one prastha each of clarified butter and curds.

[90] This formula is found, in the identical recension, in Ch., VI. 5 [403] (vv. 143-144), SY., XXX, 64, 55 [421] and V., XXX [427] (vv. 52, 53), and in another, only very slightly differing recension, in Śâ., II, 9 [337] (vv. 19, 20), Ch., VI. 8 [324] (v. 164), VI, 9 [403] (v. 104), VI, 18 [403] (v. 1105). In a third recension, in verse, it occurs in the V., XXXVIII [427] (vv. 150-160), and in the same recension, in prose, it is given in S., IV, 14 [406] (§ 1). In a fourth and much shorter recension, it occurs in Ch., I, 193 [74]. In a fifth short recension it occurs in AH., IV, 5 [361] (vv. 22, 23). It is found under different names; the usual one is simply *Shaṭ-pala*, under which it is frequently quoted, *e.g.*, Ch., VI, 3 [471] (v. 293), VI, 18 [440] (v. 77*a*), S., VI, 51 [324] (v. 26), AH., IV, 1 [325] (v. 1546), IV, 7 [368] (v. 104*a*). But it is also called the *Kshîro-shaṭpala* (Vangasêna, Chakradatta), *Pañcha-kôla* (Charaka, *see* note 96), and *Pippaly-âdi* (Śârṅgadhara).

[26] The foregoing five drugs are known under the name of *Pañcha-kôla*, *see* V., 1 [31] (v. 332), AH., I, 3 [35] (v. 1646), BhP., I, 1 [56], Ch., I, 114 [9].

[27] This formula is found in a practically identical form in V., XXX [427] (v. 10), and in two other, only slightly differing, recensions in Ch., VI, 5 [403] (v. 62), Ch., XXX, 32 [309], and in AH., IV, 14 [324] (vv. 21*b*—22*a*) respectively.

[91] This formula occurs in a slightly different recension in Ch., VI, 5[403] (vv.122-123). In another slightly different recension it is given in SY., IX, 39-40 [59], V., VIII [428] (vv.120, 121), and Ch., IX, 33 [309]; and in a third, in AH., IV, 2 [323] (vv. 40*b*-42*a*). It is named in S., VI, 51 [324] (v. 26*b*), where the commentary refers to S., VI, 45 [323] (vv. 29, 32). See also BhP. II, 2 [47].—*Vâsâ* is the same as *Vṛiśa*; hence the name of the formula.

quantity. Then add to it a paste made of its flowers, (154) and boil *again the whole* in clarified butter together with honey of the small bee. This *preparation* cures abdominal tumours due to *deranged* bile, and is a remedy against hæmorrhagia, fever, asthma, cough, and heart-diseases.

(XI) The CHÂNGÊRÎ Clarified Butter,[99] in 3 ślôka.

(155—157.) *Take* dry ginger, root of long pepper, plumbago-root, Hastipippalî (*Piper chaca*), Śvadaṃṣṭrâ (*Tribulus terrestris*), long pepper, coriander-seed, bêl, Pâṭhâ (*Stephania hernandifolia*), and lovage, (156) and boil pastes made of them in clarified butter together with the fresh juice of Châṅgêrî (*Oxalis corniculata*) and with four times as much of curds. This preparation is a remedy against *derangements of* the phlegm and air, (157) *and* cures hæmorrhoids, chronic diarrhœa, strangury, diarrhœa, prolapsus ani, and costiveness.

(XII) Another CHÂNGÊRÎ Clarified Butter,[100] in 2 ślôka.

(158 and 159.) Take of the Châṅgêrî juice a quadruple quantity, thoroughly strained,[101] and having mixed it with as much as a vilva[a] of the paste of the same *Châṅgêrî*, (159) boil *the whole* slowly over a gentle fire in one prastha[a] of clarified butter. Any one, suffering from piles, who drinks *this preparation*, will be made comfortable.

(XIII) The KAṆṬAKÂRIKÂ Clarified Butter,[102] in 2 ślôka.

(160 and 161.) Extract fresh juice of Nidigdhikâ (*Solanum xanthocarpum*) by crushing it with a blunt instrument, and boil one prastha[a] of clarified butter in four times as much of that juice; (161) throw in also a paste *made* of the three acrids[23], *Râsnâ (*Vanda Roxburghii*), Gôkshura (*Tribulus terrestris*), *and* Balâ (*Sida cordifolia*). This preparation is an instant cure for the five *kinds of* cough.[103]

[99] This formula is found, in the identical recension, in Ch., VI, 9 [164] (vv. 110-112), Chd., IV, 27 [154] and SY., IV, 27-29 [98], V., III [128] (v. 60-62). In another slightly differing recension, it is given in Śâ., II, 9 [36] (v. 21-24). In a third and much shorter recension, it occurs in AH., IV, 8 [36] (v. 77b-79a). In a fourth equally short recension it is quoted in the commentary to Chd. (*ibid.*) and runs as follows: *dadhi-dhânya-vilva-pâṭhâ-gandhikâ-pañchakôla-gôkshurakair chângêri-svarasê sarpir-guḍa-saṃyuti-mahitê sudgirâḥ*, i.e., "a preparation of clarified butter made with curds and fresh Châṅgêrî juice and paste of coriander, bêl, pâṭhâ, lovage, the five kôla (see note 96) and gôkshura is a cure for prolapsus ani and strangury." Lastly it is found in a fifth, but much expanded recension, in Ch., VI, 9 [164] (vv. 113 ff.), and V., III [128] (vv. 178-184). See also Mat. Med., p. 124.

[100] This formula is a mere variation of the preceding one, and does not appear to be a quotation, but made by the author of the Nâvanîtaka himself. The two formulas differ only in the omission of the curds, in the place of which the author suggests that the quadruple quantity of Châṅgêrî juice itself may be taken, and then mixed with paste of the same drug.

[101] On *pariruta* see Med. Dict. It means *vindutaḥ kharita*, trickling off in drops, or *castra-gâlita*, passed through a cloth, hence strained, clarified. See *parirêkya*, in v. 269.

[102] This formula is given, in another recension, in SY., XI, 37-40 [99], V., XI [74] (v. 150) and Chd., XI, 34 [118], and in a third recension in SY., XIII, 7-8 [100], Chd., XIII, 9 [127] and V., XIII [128] (v. 31). There is a fourth greatly expanded recension, with additional ingredients, in Ch., VI, 22 [170] (vv. 123-126), V., XI [74] (vv. 151-155), AH., IV, 3 [62] (vv. 59-62a).

[103] The five kinds of cough are the following,—1, *vâtika* or cough due to air; 2, *paittika* or cough due to bile; 3, *ślaiṣmika* or cough due to phlegm; 4, *sarvâ-kshata* or cough due to ulcers in the chest; 5, *kshaya* or cough due to consumption. See Nid., p. 63, and AH., III, 2 [36] (v. 17). There is, however, also another division into 3 kinds according as the cough is due to one single humour (*vâta-ja, pitta-ja, kapha-ja*) or to two humours jointly (*dvandva-ja*) or to all three humours jointly (*sannipâta-ja*); see the commentary to Chd., XI, 34 [118].

(XIV) The MṚIDVĪKĀ Clarified Butter,[104]

in 3 ślôka and 1 pâda.

(162—165*a*.) *Take* eight palas[a] of liquorice and one prastha[a] of raisins, and boil them slowly over a gentle fire in one drôṇa[a] of tank-water; (163) and when *the whole* is reduced to one-eighth *of its original quantity*, boil it *once more* in one prastha of clarified butter. When it is done, strain it and allow it to cool, and then add (164) eight pala of sugar and one-half prastha of honey of the common bee. This *preparation* may be given to people suffering from hemorrhage, cough, deficiency of semen,

Sixth Leaf: Reverse.

(165*a*) debility, and ulceration, *and should be taken* with an equal quantity of powdered parched grain.

(XV) The RÂSÂYANIKA Clarified Butter,[10]

in 4 ślôka.

(165*b*—169*a*.) Boil one pala[a] each of the lesser set of five roots[108], Gulûchî (*Tinospora cordifolia*), liquorice, Balâ (*Sida cordifolia*), (166) in one drôṇa[a] of water, till *the whole* is reduced to one-fourth *of its original quantity*. With this decoction boil *once more* one prastha[a] of clarified butter, (167) together with a paste of the drugs called Jîvanîya.[109] Add also of milk four times as much (*i.e.*, 4 prastha), and of the juice of Vidârî (*Ipomoea digitata*), emblic myrobalan and sugar-cane (168) just as much as the *quantity of* clarified butter (*i.e.*, one prastha of each), and boil *the whole* over a gentle fire. This preparation, known as the Râsâyanika (*i.e.*, 'of the nature of the tonic'), may be given as a remedy against consumption, (169*a*) and as a cure for heart-diseases, cough due to ulcers, and fevers.

(XVI) The ŚARAMÛLÎYA Clarified Butter,[107]

in 7 ślôka and 1 pâda.

(169*b*—176.) Roots of Śara (*Saccharum Sara*) and of sugar-cane, Kaṇḍêkshu (*Saccharum spontaneum*), Ikshuvâlikâ (*Saccharum fuscum*), (170) Śatâvarî (*Asparagus racemosus*), *Payasyâ (*Gynandropsis pentaphylla*), Vidârî (*Ipomoea digitata*),

[104] This formula is given in a much more expanded recension, under the name of *Sama-sarkṣuka*, or 'with an equal quantity of parched grain,' in verse 454→459. In addition to the ingredients here given, it comprises long pepper, milk, pastes of various drugs, and goat's flesh. Ch., VI, 16 [69] (vv. 45, 46) and AH., IV, 3 [104] (vv. 105-106) have a third recension, called *śakṛt-prayôga*, which practically agrees with ours, here given, except that it adds long pepper. On the other hand, the V., X [97] (vv. 34-37) and BhP., II, 2 [21] give a fourth recension which rather agrees with the recension in vv. 454-459. It adds long pepper, milk and pastes, but omits goat's flesh as well as honey.

[10] See Part I, note 48.

[108] The drugs belonging to the so-called *Jîvanîya-gana*, or 'class beginning with *Jîvanîya*, or *Jîvanti*,' also called the *Śataka-varga* or 'group of ten,' or *madhura-varga* or 'group of sweet drugs,' are the following ten: 1, *Jîvanti* (Dendrobium multicaule); 2, *Kâkôli*; 3, *Kshîra-kâkôli*; 4, *Mêdâ*; 5, *Mahâmêdâ*; 6, *Jîvaka*; 7, *Rishabhaka*; 8, *Mudgaparṇi* (Phaseolus trilobus); 9, *Mâshaparṇi* (Teramnus labialis); 10, *Madhuka* (liquorice). See Ch., I, 4 [9] (§ 25), AH., I, 15 [10] (v. 8), and Śâ., II. 6 [10] (vv. 14-16). V., XII [20] (vv. 22, 23). Nos. 2-7 in this list belong to the so-called Ashṭa-varga (see Part I, note 51); and some authorities add the whole of the latter varga to the list, thus making it comprise twelve drugs. See the Vaidyaka Paribhâshâ in the larger Petersburg Dictionary. *Jîvanîya* is also a synonym of *Jîvanti* (v. 611); but not when used in the plural; see v. 621; also v. 278, where it stands together with the plural of *yaudha*, showing that both indicate classes, not individual drugs.

[107] This formula is found, in the identical form, in Ch., VI, 2 [68] (vv. 23-31), and in a different and more expanded recension, in AH., VI, 40 [87] (vv. 12b-21a). The translation follows Gangâdhar's commentary on Charaka.

Kaṇṭakârikâ (*Solanum xanthocarpum*), *Jîvanti (*Dendrobium multicaule*), Jîvaka[71], Mêdâ[71], Vîrâ (*Desmodium gangeticum*), Ṛishabha[71], Balâ (*Sida cordifolia*), (171) Ṛiddhi[71], Gôkshuraka (*Tribulus terrestris*), * Râsnâ (*Vanda Roxburghii*), cowhage, Punarnavâ (*Boerhaavia diffusa*). Take three palas[9] each of these *drugs* and one âḍhaka[9] of fresh Mâsha (*Phaseolus Roxburghii*), (172) and boil them in one drôṇa[9] of water till *the whole* is reduced to one âḍhaka. Then throw in pastes[40] *made of* liquorice, raisins, Phalgu (*Ficu oppositifolia*), long pepper, (173) cowhage, Madhûka (*Bassia latifolia*), dates, Śatâvarî (*Asparagus racemosus*), and boil *the whole once more* in one âḍhaka each of the juice of Vidârî (*Ipomoea digitata*), emblic myrobalan and sugar-cane, (174) one âḍhaka of clarified butter, and one drôṇa of milk, till it is reduced to the quantity (*i.e.*, one âḍhaka) of the clarified butter. *Now* strain it well (through a piece of cloth), add to it (175) one prastha[9] each of powdered sugar and bamboo-manna, and make it into pills of one pala each. These *pills* may be administered in accordance with *the state of the patient's* digestion. (176) This preparation is most excellent as an aphrodisiac, alterative tonic, and strengthening medicine. By means of it the venereal appetite is powerfully excited.[108]

(XVII) The MÂYÛRA Clarified Butter,[109] in 5 ślôka.

(177—181.) Prepare spiced mince-meat[110] of peacock's flesh and boil it in one armaṇa[9] of water, together with *Râsnâ (*Vanda Roxburghii*), the ten roots[105], Balâ (*Sida cordifolia*), and liquorice, (178) till *the whole* is reduced to one quarter *of its original quantity*. Then boil it *once more* in one prastha[9] of clarified butter together with four times as much of milk and with paste[40] made of the drugs of the Jîvaniya class.[106] (179) This Mâyûra *preparation* is recommended as a sternutatory and a potion, and for external application to the head, as a cure for head-aches, facial paralysis, and tumours. (180) It also removes pains in the ears, deafness, stiffness of the neck, lock-jaw, fetor of the mouth, noises in the ear, inflammation of the palate, ranula, (181) night-blindness, redness of the eyes, obscuration of sight, vitrification of the aqueous humour, and the milder and severer forms of ophthalmia.[111]

Seventh Leaf : Obverse.

(XVIII) The MAHÂ-TRYÛSHAṆA Clarified Butter,[112] in 3 ślôka and 1 pâda.

(182—185*a*.) Take the three acrids[32], the three myrobalans[15], Pâṭhâ (*Stephania

[108] Lit., *per hoc equi instar excitati membrum in ægit petens.*

[109] This formula occurs in three different recensions in Ch., VI. 26 [261] (vv. 146-148), SY., LXII. 51-53 [40], V., LXVII [68] (v. 33-37), Chd., LXIV. 35 [64], and AH., VI. 24 [48] (vv. 47-48*a*), and Śa., II. 9 [32] (vv. 72-75) respectively. In the same works there is also given a much more expanded form of the formula, under the name of 'Mahâ-Mâyûra clarified butter.'

[110] For *vêṭavâra* or 'spiced mince-meat' there exist several recipes. According to AH., I. 6 [47] (v. 326) it is made of minced meat confected with dry ginger, coriander, cumin, and asafœtida, in clarified butter. According to V., XXII [67] (v. 35) the mince-meat is confected with long pepper, black pepper, molasses, and clarified butter. According to Suśruta the ingredient drugs are ginger, pepper, and sugar. See the larger Pet. Dict., *subvoce*.

[111] According to Suśruta, cataract passes through three stages of development. The initial stage is called *timira*, obscuration of sight; the medial stage is *kâcha*, or, as here, *jala-kâchatâ*, vitrification of the aqueous humour; the final stage is *liṅga-nâśana*, destruction of the organ of sight. The two earlier stages are named in verse 181. In the third stage the disease must be operated on. *Timira*, however, is also used to denote cataract generally.

[112] A formula, practically the same as this and called by the same name, but in a different recension, is given in Ch., VI. 22 [261] (vv. 37-40). The latter has twenty-two, while our formula has twenty drugs; and from among these seventeen are common to both recensions.

hernandifolia), plumbago-root, deodar, Râsnâ (*Vanda Roxburghii*), *zedoary*, Tâmalakî (*Phyllanthus urinaria*), Vidârî (*Ipomoea digitata*), Nidigdhikâ (*Solanum xanthocarpum*), Gôkshura (*Tribulus terrestris*), Sthirâ (*Desmodium gangeticum*), (183) cowhage, Śârivâ (*Ichnocarpus frutescens*), Mêdâ[71], and Śatâvarî (*Asparagus racemosus*). Boil equal parts of all these *drugs* in (one prastha[s] of) clarified butter[112] together with four times as much of milk. (184) This preparation relieves coughs and fevers, heat in the head, and want of relish for one's food. It may also be given in cases of heart-diseases, of a hard globular swelling and other tumours in the abdomen due to *deranged* air, of spleen, and of emaciation and debility from ulcers. (185*a*) It cures piles, as well as the air-humour, when either of them is in an angry state, and, *in fact*, all *diseases*, if it is properly administered.

(XIX) The CHYAVANA PRÂŚA Clarified Butter,[114] in 13 ślôka.

(188—200.) Bêl, Agnimantha (*Premna integrifolia*), Syônâka (*Oroxylum indicum*), Kâśmîmarya (*Gmelina arborea*), Pâṭalâ (*Stereospermum suaveolens*), Balâ (*Sida cordifolia*), the four Parṇî[118], long pepper, Śvadaṁshṭrâ (*Tribulus terrestris*), the two Vṛihatî[78], (189) Śṛingî (*Rhus succedanea*), Tâmalakî (*Phyllanthus urinaria*), raisins, * Jîvantî (*Dendrobium multicaule*), Pushkara[12], aloe-wood, chebulic myrobalan, Amṛitâ (*Tinospora cordifolia*), Ṛiddhî[71], Jîvakâ[71], Ṛishabhâ[71], zedoary, (190) Mustâ (*Cyperus rotundus*), Punarnavâ (*Boerhaavia diffusa*), Mêdâ[71], cardamoms, sandal, blue lotus, Vidârî (*Ipomoea digitata*), roots of Vṛisha (*Adhatoda vasica*), Kâkôlî[12], * Kâkanâśikâ (*Leea hirta*). (191) Of these *drugs* take one pala[s] each, add five hundred *pala*[s] of emblic myrobalan, and boil *the whole* together in one drôṇa[s] of water, (192) till the infusion is found to be sufficiently evaporated.[116] Now remove the emblic myrobalans from the *inspissated* juice, stone them[117], and fry them (193) in twelve pala of (sweet) oil and clarified butter. Then add fifty pala of well-clarified solid molasses (to the inspissated juice and the fried myrobalans), till *the whole* is brought to the consistency of a linctus.[118] (194) When it has become cool, mix it with six pala of liquorice, four pala of bamboo-manna, two pala of long pepper, (195) and one pala each of cinnamon-bark, cardamoms, cinnamon-leaves, and Kêsara (*Mesua ferrea*). This is the celebrated tonic preparation, *called* the Chyavana-prâśa. (196) It is a remedy for cough and asthma, and it is especially said to promote the growth of the tissues of the body in the

[112] The quantity of clarified butter is one prastha, as shown by the recension in Charaka, see note 112.

[114] This formula is found, in the identical recension, in Ch., VI, 1[4-9] (vv. 59-71), SY., X, 29-41[56], V., IX. [36] (vv. 141 ff.), and Ch., X. 20 [2-5]. In another recension it is given in AH., VI, 39 [2-4] (vv. 33-41); and in a third, in HS., III, 9 [2-5]. —I have omitted the first two verses (vv. 186 and 187). They are not given in any of the other recensions; moreover, some of the drugs mentioned in them are repeated in the subsequent verses. They are found in vv. 128, 129 as parts of the Mahâ-kalyâṇaka formula, and it can hardly be doubted but that they are there in their right place, and are given here by one error of the scribe of the Manuscript.

[118] The "four Parṇî" are the following four drugs, called by names ending in *parṇî* : 1, *Śâliparṇî* Desmodium gangeticum), 2, *Prṣniparṇî* (Uraria lagopodioides), 3, *Mudgaparṇî* (Phaseolus trilobus), and 4, *Mâshaparṇî* (Teramnus labialis). See AH., IV, 1 [28] (v. 120), and the commentary to Ch., X. 20 [2-5].

[114] The commentaries to Charaka and Chakradatta (see note 114), explain this to mean "till the decoction is reduced to one-fourth of its original quantity," or, according to some, "to one-eighth." The Ashṭâṅga Hṛidaya, in its own recension, says "one-fourth" (*pâda-śêsha*).

[117] *Nishkôla* is explained in Chakrapâṇidatta's commentary on Ch., VI, 1 [28] (v. 63).

[118] The construction is here (from *tad-rasaṁ* down to *sâdhayêt*) very rugged and anakoluthic. It is somewhat improved in the more modern version of the Charaka and Chakradatta (see note 114), which read *tach rasaṁ* and *datvâ* (for *dêyâ*). Verbally the translation would run thus: 'taking out that *inspissated* juice and these emblic myrobalans (after stoning *the latter*, and frying them in oil and butter), add molasses, and prepare *the whole* to the consistency of a linctus.'

emaciated, the ulcerated, the old, and the young. (197) It also cures loss of voice, consumption, diseases of the chest and of the heart, leprosy, (morbid) thirst, and disorders connected with the urine and semen. (198) Of this *preparation* any quantity may be taken that does not interfere with the digestion of one's ordinary food.

Seventh Leaf: Reverse.

By the use of it, Chyavana[119], when of great age, was restored to youth. (199) Intelligence, memory, beauty, health, length of life, power of the senses, eminent potency with women, increase of the digestive power, clearness of complexion, and regularity of the air-humour. (200) *all these* are acquired by a man, however old and decrepit he may be, through the use of this tonic, *if administered* in the retirement of his house. His appearance of decrepit old age will then be transformed into that of fresh youth.

(XX) The DAŚÂNGA Clarified Butter,[120]

in 3 ślôka.

(201—203.) *Take* one aksha[9] each of chebulic myrobalan, the three acrids[23], Vachâ (*Acorus Calamus*), Kaṭukarôhiṇi (*Picrorrhiza Kurroa*), sonchal-salt, carbonate of potash, baberang, and plumbago-root, (202) and boil them in one prastha[9] of clarified butter. Then strain the decoction, and drink it in doses suitable to the strength *of the digestion.* (203) This Daśânga (or 'medicine of ten ingredients') relieves abdominal tumours due to *deranged* air, spleen, cough, hiccough, and kills worms. These diseases it cures just as the thunderbolt destroys the Asuras.

(XXI) The NÂRÂCHAKA Clarified Butter,[121]

in 6 ślôka.

(204—209.) Take one karsha[9] each of plumbago-root, the three myrobalans[18], Vṛihatî (*Solanum indicum*), Kaṇṭakârikâ (*Solanum xanthocarpum*), the milky juice of Snuhâ (*Euphorbia neriifolia*), baberang-seeds, and as the ninth *ingredient* (205) one kuḍava[9] of clarified butter. Boil these together in four times as much (*i.e.*, 4 kuḍava) of water over a gentle fire. (206) Of this *preparation* take at suitable times a dose of half a karsha, and follow it up with a drink of warm water on account of the smallness of the dose of the clarified butter. (207) When it has purged the patient, he may be given some gruel stirred in clarified butter, or some food *cooked* with the broth of land-animals. (208) This *preparation* relieves abdominal tumours due to *deranged* air, retention of discharges, scrotal enlargement, piles, spleen, strengthens a weak digestion[122], and

[119] Chyavana was a Rishi, whom the Aśvins restored to youth, when he had become old and decrepit. For a full account of his story see Dowson's Classical Dictionary of Hindu Mythology, *sub voce*. In the Hârîta Saṁhitâ (see Note 114) the formula is said to have been taught by Kṛishṇâtreya (*Kṛishṇâtreya-nibôdhita*). He is named among the great Rishis in Ch. I, 1, v. 8.

[120] I cannot trace this formula anywhere; though there are three formulas under the name of Daśângas in AH., VI, 3 [407] (vv. 486-493), VI, 37 [497] (vv. 275-28), and Chd., LIII, 28 [408], and HR., III, 2 [109], respectively. But they are all made up of entirely different ingredients.

[121] This formula is found in a slightly different recension in V., XXXVIII [464] (vv. 105-107). Here it has eleven ingredients, including the clarified butter. In a third recension, with ten ingredients, it is given in V., XXXVIII [464] (vv. 103, 104) and Chd., XXXVIII, 30 [409]. There exists also a formula for a powder (*châṛṇa*) under the name of *Nârâchaka*, in AH., IV, 14 [398] (v. 37). Compare also the *Mahâ-nârâchaka-rasa* in Mat. Med., p. 229.

[122] *Grahaṇî* is the name of the small intestines, the seat of *agni*, or the digestive fire, see AH., II, 3, v. 53a. Hence *mandâ grahaṇî*, weak state of the small intestines, is practically synonymous with *mandâgnitâ*, weak digestion. But often *grahaṇî* is used by itself, to denote diarrhœa; or it is qualified by *dôṣa*, disorder, as in verse 493.

cures skin-diseases. (209) It is called Nârâchaka (or 'arrow'), because it may be employed by a physician like an arrow against an enemy.

(XXII) The MÛLAKA Clarified Butter,[10]

in 6 ślôka.

(210—215.) Take eight pala[9] of old radishes, and boil them down slowly over a gentle fire in a pan *filled* with one drôṇa[9] of water. (211) Then throw in a paste made of no more than one bilva[9] of radish, also a paste made of five pala of the seed of pomegranate. (212) To this add (pastes made of) one pala each of finely powdered long pepper, ginger, and plumbago-root. (213) Further add eight pala of fresh clarified butter, and the same quantity of well-made curds. (214) The whole of this boil

together slowly over a gentle fire; and when it is found to be thoroughly done, strain it carefully, and store it for use. (215) For any disease that may arise in one's body through *the derangement of* phlegm and air, this preparation serves as a most excellent remedy.

(XXIII) The LASUNA Clarified Butter of the Aśvins,[123]

in 7 ślôka.

(216—222.) Boil one hundred *pala*[9] of garlic in one drôṇa[9] of water, and when the decoction is reduced to one-fourth *of its original quantity*, take it off *the fire*. (217) With this decoction boil one âdhaka[9] of clarified butter, and while it is boiling, throw in pastes made of powders of the following *drugs:* (218) one karsha[9] each of plumbago-root, long pepper, and Chavyâ (*Piper Chaba*), one pala of ginger, (219) half a pala each of the five salts[32] and of Indian sorrel, and one pala each of Râmaṭha (*Alangium hexapetalum*) and asafœtida. (220) When it is ready, strain it carefully, and keep it well covered for use. A dose of it may be taken at a suitable time.[124] Now listen to the diseases in which it is beneficial: (221) globular swelling in the abdomen due to *deranged* air, sciatica, abdominal tumours due to *deranged air*, enlargement of the spleen, nervous diseases, morbid pallor, piles, and fistula in ano. (222) Whether any one is paralysed in one part of his body, or in all parts[125], let this Laśunâdya (*i.e.*, 'prepared with garlic and the rest') clarified butter be given to him, *for* it is a composition of the Aśvins.[126]

[10] This formula is found in a more concise recension in V., XXII,[404] (vv. 605, 606). In this recension the drug *Râmaṭha* is omitted; the reason of which possibly is that *Râmaṭha* is also a synonym of *Hiṅgu* or 'asafœtida.' There is a somewhat similar formula given in V., XXII [367,368] (vv. 40-43 and vv. 44-48*a*), but it prescribes only a very small quantity (one and a half pala) of garlic, and is therefore called the *Svalpa-rasôna-piṇḍa*, i.e., 'bolus made with a little garlic.'—Both formulas of Vaṅgasêna are given in the chapter on the *Vâta-vyâdhi* or 'nervous diseases.'

[123] *I.e.*, early in the morning (*prâtaḥ*).

[125] There are three diseases; *êk-âṅga* or *êk-âṅgika*, 'local paralysis (of one limb),' *pakṣâha-bâdha* or 'partial paralysis (of a whole side),' and *sarv-âṅga* or 'total paralysis (of the whole body).' The first two are mentioned in v. 332. In AH., III, 15 [363] (v. 40*a*) it is said that some physicians identify these two.

[126] The Aśvins, or 'the pair of charioteers,' 'Dioscuri,' are the two physicians of heaven. See a full account of them in Dowson's Classical Dictionary of Hindu Mythology. They are the first founders of medicine, having been taught by Daksha; see BhP., I, 1 [7]. See Part I, note 4.

(XXIV) The ANTIFEBRILE Clarified Butter of the Aśvins,[126] in 3 ślôka.

(223—225.) The *following* clarified butter is to be prepared with ten times its quantity of water, till all the water is evaporated: boil emblic myrobalans in ten times their quantity of water, (224) and when *the decoction* is reduced to the tenth part *of its original quantity*, boil it in one prastha[9] of clarified butter. When ready, it may be given to drink to any one much troubled with fever[127] in doses suited to his strength. (225) It is highly esteemed by Brahman as a remedy against every kind of fever, and when it is used for any length of time, it serves as a strengthening and alterative tonic.

(XXV) The SIDDHÔTTARA Clarified Butter[128], in 6 ślôka.

(226—231.) Take twenty fruits each of the emblic, chebulic and belleric myrobalans[15], also one pala[2] each of Tráyamâṇa[45], (227) Tiktarôhiṇî (*Picrorrhiza Kurroa*) and Gulûchî (*Tinospora cordifolia*), and boil *the whole* in one-half kaṁsa[9] of water, till it is reduced to one-quarter *of its original quantity*. (228) Then boil it again with half as much[129], that is, with one kuḍava[9] of pure clarified butter, and throw in also pastes made of the following fresh drugs: (229) one-half pala each of long pepper and turpeth-root,

Eighth Leaf: Reverse.

one-fourth *pala* of Kampilyaka (*Mallotus philippinensis*) and one-tenth *pala* of Nichula (*Barringtonia acutangula*). (230) When ready, *this preparation* should be strained, and may then be used as a remedy against morbid pallor[7], jaundice, abdominal tumours, hernia[182], morbid secretion of urine, swellings, skin-diseases, (231) disorders of the penis, enlargements of the abdomen, constipation, fevers, and diseases caused by eating unsuitable food. *In all these cases* this *preparation of* clarified butter is a most effective remedial agent.

(XXVI) The DHÂNVANTARA Clarified Butter[130], in [9] ślôka.

(232—240.) Take eight sannakha[9] of Dantî (*Baliospermum montanum*) and plumbago-

[126] *Kâśita*, from √*kaś*, trouble, torment. It has nothing to do with *kâsa*, cough, or *kâsin*, coughing, as shown by the palatal *ś*. Hence footnote 66, on p. 38, should be cancelled.

[127] I have not been able to trace this formula elsewhere. But in later works it would seem to have been broken up into two formulas. The first part (with the three myrobalans and *Guḍûchî*) is made a formula by itself in SY., XXXIX, 2[403], Chd., XXXIX, 2[431] and V., XXXIX[504] (v. 33), quoted in Mat. Med., p. 204, No. 3. The second part (with long pepper, turpeth-root, *Kampilyaka* and *Nichula*) is added on to the Dhânvantara formula. See note 130.

[128] *Pardrûpya* means 'being equal to one-half of the other,' *i.e.*, of the reduced infusion, and indicates the quantity of clarified butter to be one kuḍava. This indication works out correctly: for a *kaṁsa* is equal to one śôḍhaka, or 16 kuḍava; hence half a *kaṁsa* = 8 kuḍava; hence one-fourth of half a *kaṁsa* = 2 kuḍava; hence finally one-half of that one-fourth is equal to one kuḍava. Charaka (*i.e.*, Dṛiḍhabala), VII, 12[197] (v. 945) makes the *kaṁsa* equal to eight *prastha* or two śôḍhaka; but he differs herein from all other medical writers. See *ante*, footnote 9.

[129] This formula is found in two other, but rather different recensions, one in SY., XXXV, 23-39[395], V., XXXVI[455] (v. 89-96); Chd., XXXV, 19[404], and the other in AH., IV, 12[359] (v. 19-24*a*). The first portion of the formula is practically the same, but the second portion, prescribing the pastes, almost entirely differs in the drugs, some of which (viz., *Pippalî*, *Triṇṭî*, *Kampilyaka* and *Nichula*) are the same with those in the preceding Siddhôttara formula. This would seem to point to some connection between the two formulas, as if they had subsequently been broken up into

root, twenty choice chebulic myrobalans, six pala[9] of deodar, (233) also six pala each of the larger and smaller kinds of Kadamba (*Anthocephalus Cadamba*), Varaṇa (*Crataeva religiosa*), Rājavṛiksha (*Euphorbia neriifolia*), Punnarnavā (*Boerhaavia diffusa*), and rind of Chirivilva (*Pongamia glabra*), (234) and add one âḍhaka[9] each of the two Panchamûla[105] (or 'sets of five roots'). Then boil *the whole* in one drôṇa[9] of tank-water over a gentle fire, (235) and when the decoction is reduced to one-fourth *of the original quantity*, take it down *from the fire*. Now, boil it *once more* in one âḍhaka of clarified butter, and throw in also pastes of one karsha[9] each of the following drugs: (236) long pepper, root of long pepper, Chavya (*Piper Chaba*), black pepper and the five salts.[26] (237) This *preparation of* clarified butter called the Dhânvantara (or 'composed by Dhanvantari') is a remedy for all diseases. It cures the five *kinds of* abdominal tumours[31] when they have become apparent, the eight *kinds of* enlargements of the abdomen[31], (238) swellings, consumption, piles, and the twenty-one *kinds of* morbid secretion of urine.[31] It also strengthens a weak digestion[102], and cures the many kinds of skin-diseases. (239) It counteracts the venom of snakes and mice, also every sort of artificial poison.[57] Taken with any meal, without any *dietary* restriction, it is an agent for increasing the bulk of one's body.[124] (240) This clarified butter, composed by Dhanvantari[106], is most excellent and highly esteemed by Brahman. Whoever makes suitable use of it will attain the highest prosperity.

(XXVII) The ANTITOXIC Clarified Butter of the Aśvins,[10] in 4 ślôka.

(241—244.) Take equal parts of (white) sandal, Uśira (*Andropogon muricatus*), Padmaka (*Prunus Puddum*), Kuruvindaka (*Dolichos biflorus*), Trâyamâṇa[68], Chandanaśârivâ (*Ichnocarpus frutescens*), (242) Prativishâ (*Aconitum heterophyllum*), and Tâmalakî (*Phyllanthus urinaria*). Boil them in one prastha[9] of clarified butter, after first boiling them down in four times that quantity of water.[124] (243) This makes a potion which is beneficial in morbid secretion of urine, hemorrhagia, consumption, piles, loose bowels, and morbid pallor.[7] (244) It cures also chronic diarrhœa and skin-diseases. This *preparation of* clarified butter acts ambrosia-like as an antitoxic medicine.

two separate formulae. A fourth recension in prose occurs in S., IV, 12[165] (§3); it agrees in the main with that in AH., but its genuineness is objected to in Dallana Mishra's commentary. All these recensions substitute *Saṭhî* or *Suṭhî* (Kuphorbia neriifolia) for *Râjavṛiksha*, and this agrees with the properties and uses of *Suṭhî*, as described in Phar. Ind., III, p. 254. The usual synonym of this tree, however, is *Mahâsnihâ*, while *Râjavṛikshâ* is more usually applied to *Aragvadha* (Cassia Fistula). *Nimba-kadamba* (or *Nipa-kadamba*) is explained in the commentary to the Chakradatta recension to be the *dâsavṛikshat-kadamba*, i.e., 'the small and the large Kadamba, or the *Kadamba* and *Ankuṭasha* (Vernonia cinerea).

[105] On the five *gulma*, the eight *udara* and the twenty-one *prameha*, see Nid., pp. 116, 128, 135, and White, pp. 337, 354 and 360, 361. The uniform doctrine of the Indian medical works, however, is that there are only twenty varieties of *prameha* or 'morbid secretion of urine'; but they state that all these twenty varieties may terminate in the incurable *madhu-meha* or 'diabetes.' The number twenty-one of our text, therefore, probably includes the *madhu-meha*.—Of the eight *udara*, the first four, which are due to the humours singly or in conjunction, are called *dâka-udara*, in v. 322. The others are those due to *plîha* or 'spleen,' *baddha* or 'intestinal concretions,' *kshata* or 'intestinal laceration' and *udaka* or 'ascites.' Another name for *udara* is *jaṭhara*, see vv. 53, 62, 254.

[106] *Dêha-n-dêvanaḥ* stands for *dêh-êtarajanaḥ*, 'a corporeal being.' It is practically used in a redundant way, like *dêhinaḥ* in v. 90 and *śarîriṇâm* in v. 244.

[124] Dhanvantari is said to be the physician of the Dêvas and an early teacher of surgical science. There was, however, a human surgeon of that name. See Dowson's Classical Dictionary of Hindu Mythology. See also Part I, note 4, and BhP., I, I [7].

[124] The regular process of preparing a medicated clarified butter is: first, to inspissate a number of drugs in water, and afterwards to boil this inspissated decoction once more in clarified butter, sometimes with another supply of drugs (in juice or paste). The original text does not clearly exhibit this succession. I have accordingly done so in a free translation.

(XXVIII) The VINDU Clarified Butter,[126] in 6 ślôka.

(245—250.) Take one pala[3] each of plumbago-root and of the black and white varieties of turpeth-root,

Ninth Leaf: Obverse.

also (twenty-two) fruits of chebulic myrobalan, and boil them down in half a drôṇa[3] of water, (246) and when the decoction is reduced to one quarter *of the original quantity*, take it down *from the fire*. Then boil it *once more* in one prastha[3] of clarified butter, (247) boiling with it a paste made of half a kuḍava[3] each of Nîlikâ (*Indigofera tinctoria*) and the milky juice of Arka (*Calotropis gigantea*), and (of one and a half kuḍava of the) milky juice (of Sudhâ or *Euphorbia neriifolia*). (248) This *preparation of* clarified butter, known by the name of Vindu (or 'the Drops'), is a remedy for numerous diseases. As many drops of it as the patient takes, so many evacuations he will have. (249) It cures enlargements of the abdomen, spleen, abdominal tumours, skin-diseases, and cases of poisoning; and it is recommended to women in the case of abdominal tumours, adenia, and fistula in ano; (250) also in the case of piles due to *deranged* bile, of the pressure of air upwards, and of all diseases due to the concurrent *derangement of all the* humours; also in cases of illness due to administered poison[27], and in diabetes.

(XXIX) The VINDU Clarified Butter of the Aśvins,[128] in 7 ślôka.

(251—257.) With one pala[3] of the milky juice of Sudhâ (*Euphorbia neriifolia*) boil two pala of clarified butter, *adding* also one pala of Kampilyaka (*Mallotus philippinensis*), one-half śâṇa[3] of rock-salt, (252) one pala of turpeth-root, and one kuḍava[3] of the juice of emblic myrobalan, after having decocted these in one kaṁsa[3] of water slowly over a gentle fire.[124] (253) This *preparation of* clarified butter, known by the name of Vindu (or 'the Drops') is a composition of the Aśvins and is excellent. As many drops of it as *the patient* takes, so many evacuations he will have. (254) A dose of one karsha[3] should be given to people suffering from enlargements and small tumours in the abdomen. It may also be administered for hypertrophy of the tonsils. (255) Afterwards *the patient* should drink warm water on account of the smallness of the dose. One dose of it is sufficient to disperse abdominal tumours that are due to combined disorder of the three humours[127] and are very painful, and of great size, (256) just as the wind disperses the clouds. It may be administered for the purpose of removing *any of*

[126] This formula is much mutilated, but sufficient is preserved to identify it with another, though much expanded, recension in V., XXXVIII[168] (vv. 109-113a) and Chl., XXXVII, 28[169]. There is a third, still longer recension in Śâ., II, 9 [170]. These recension prescribe from five to nine additional drugs (one pala of each).— Twenty-two myrobalans are equal to about one pala.

[128] This formula is given, in a somewhat shorter recension, in V., XXX [162] (vv. 106, 107). The only difference in the drugs is that it substitutes *Arka-kshîra*, 'the milky juice of Calotropis gigantea for *Amalaki-rasa*, or 'juice of emblic myrobalan.'

[127] *Nichaya* is a synonym of *sannipâta*, joint vitiation of the three humours. See the commentaries to AH., III, 11 (v. 32), 13 (v. 37), IV, 10 (v. 65), 15 (v. 128), Ch., VI 18 (v. 100).

the five *kinds of* abdominal tumours[131], (257) just as the thunderbolt is in the hands of Svayambhû for the destruction of the whole *host of* Asuras. This *preparation of* clarified butter, known by the name of Vindu (or 'the Drops'), is declared to be a perfect medicine on the authority of the Sages (or 'Perfected-ones').

(XXX) The SÂRASVATA Clarified Butter,[132] in 3 ślôka.

(258—260.) Take the following ten ingredients: goat's milk, ginger, Vachâ (*Acorus Calamus*), Śigru (*Moringa pterygosperma*), chebulic myrobalan, long pepper, black pepper, Pâṭhâ (*Stephania hernandifolia*), rock-salt, and clarified butter. (259) Of the eight drugs, from ginger down to rock-salt, take one pala[8] each, and boil these in one prastha[9] of clarified butter, together with four times as much of the milk. (260) By the use of this *preparation* a man attains memory and intelligence. The drinking of it at once removes torpor[133], stammering, and dumbness.

THE THIRD CHAPTER: FORMULAS FOR MEDICATED OILS.

(I) A BALÂ Oil,[134] in 16 ślôka.

(Verses 261—276.) I will describe the oil *which is prepared* with Balâ (*Sida cordifolia*) *and is* a cure for nervous diseases.[135] It is an approved composition of Âryas, *and* for barren women an excellent predisponent to conception. (262) Take one hundred pala[9] of dry roots of Balâ (*Sida cordifolia*), twenty-five pala of Guḍûchî (*Tinospora cordifolia*), and ten pala of *Râsnâ (*Vanda Roxburghii*), (263) and having washed and crushed them, boil them in one hundred âḍhaka[9] of rain-water, till *the whole* is reduced to one âḍhaka. (264) With this decoction boil one âḍhaka each of (sweet) oil, curds with whey, śukta[37], and juice of sugar-cane, (265) and one-half that quantity (*i.e.*, half an âḍhaka) of goat's milk, boiling the whole over a gentle fire.

Ninth Leaf: Reverse.

Put in also pastes made of one pala each of the following powdered drugs: (266) roots of Balâ (*Sida cordifolia*), and Atibalâ (*Sida rhombifolia*), Śarala (*Pinus longifolia*),

[131] This formula is found in a practically identical recension in V., LXXII [103] (v. 501-504). A second recension of our formula, in a much shorter form, occurs in AH., VI, 1 [48] (vv. 46*a*-47*b*). A third recension, with slightly different drugs, is given in V., XXII [107] (v. 101). The latter work, on page 994, also gives a second formula under the same name, which, however, is entirely different. Regarding the name Sârasvata, see below footnote 284.

[132] *Jaḍa* is torpor, a morbid state of the organs of sense. In the AH., III, 6 (v. 5), *jaḍa* is explained by *tadvikra*, deaf; *ibid.*, VI, 39 (v. 47) a *jaḍa* patient is said to be cured and become *vâgmî*, eloquent, *śruta-dhârî*, endowed with good memory, *pratibhâvanta*, intelligent, and *arôga*, healthy; *ibid.*, II, 2 (v. 62) *jaḍa* is explained by *nirbuddhi*, unintelligent.

[133] This formula is found in Ch., VI, 28 [72] (vv. 144-152), and AH., IV, 21 [67] (vv. 72*b*-80), but it differs in three respects: 1. the first portion, which gives the process of boiling (vv. 262-265) is nearly identical, but expressed in a much more concise form; 2. the second portion, which enumerates the drugs for making pastes (vv. 266-268), is far more expanded, giving from twenty-two to twenty-six additional drugs; 3. the third portion, which details the diseases, is again much shorter. These differences, both in contraction and expansion, are characteristic of the later date of the Charaka recension. I have not been able to trace this formula in any other standard medical work, though they all possess a long formula for preparing a Balâ oil, which differs, however, in all respects. It is given in S., IV, 15 [48] (vv. 25-35), V., XXII [107] (vv. 248-257), Ch., XXII, 64 [77], Śâ., II, 10 [92] (vv. 17-21).

[134] *Vâta-rôga*, or *vâta-vyâdhi*, or *vâta-vikâra*, or even sometimes only *vâta*, lit., 'diseases due to (generally deranged) air' are nervous or rheumatic diseases. See Wise, p. 250. Commonly eighty diseases of this kind are enumerated; see vv. 305 and 741; also Ch., VI, 28 [72] (v. 12) and BhP., II, 2 [30].

deodar,[Musta (*Cyperus rotundus*), liquorice, madder, Tagara (*Tabernæmontana coronaria*), Padmaka (*Prunus Puddum*), aloe-wood, (267) Harêṇu (*Piper aurantiacum*), cardamoms, Vyâghranakha (*Unguis odoratus*), Kêsara (*Mesua ferrea*), Surasa (*Ocimum sanctum*), zedoary, Mudgaparṇi (*Phaseolus trilobus*), Mâshaparṇi (*Teramnus labialis*), and both Jîvaka [71] and Rishabhaka.[71] (268) When the decoction is found to be done, take it down at once *from the fire*, and throw into it a paste made of cinnamon-leaves. (269) Then having clarified it by straining, it should be stored in a clean vessel. Then it may be administered as it may suit the patient's disease and strength *of digestion*. (270) It may be administered in the form of a liniment, an errhine, an oily enema, or in one's food, or as an injection into the ears, or as a clyster by the anus or by the urethra.[142] (271) Whether it be consumption or cough or asthma or fever, or whether it be fainting or vomiting or weakness or loss of colour, (272) or whether it be swellings, diseases of the semen, abdominal tumours, spleen, scrotal enlargements[143], chronic diarrhœa, consumption, heat in the head, (273) epilepsy, *and* emprosthotonos,—all these *evils* are cured by this oil. All *disorders of* air, whether they affect the skin or the marrow, (274) or the blood vessels or the sinews, or the whole body, they are all relieved *through it*; there is no doubt whatever about this. (275) At the time of menstruation it may be given to women when they have bathed their head. A barren woman by its habitual use predisposes herself to conception. (276) It may be given to improve bad colour, avert bad luck, and increase one's muscular and sensorial powers. It is altogether an auspicious oil.

(II) *Another* BALÂ Oil,[144] in 3 ślôka.

(277—279.) Boil a decoction of one hundred (palaˢ of) Balâ (*Sida cordifolia*) in half an âḍhakaˢ of (sweet) oil, together with pastes made of liquorice, madder, sandal, lotus, Padmaka (*Prunus Puddum*), (278) and the drugs belonging to the Gandha[145] and Jîvanîya classes[130], also with two droṇaˢ of milk. This makes an oil fit for a king, and cures all nervous diseases [141]. (279) By this same method one may prepare, with * Râsnâ (*Vanda Roxburghii*), Guḍûchî (*Tinospora cordifolia*), liquorice, and likewise with Sahachara (*Barleria cristata*), oils named after these *four drugs* respectively.

[142] On enemas or clysters see AH., I. 19 [128] and Śâ., III. 5 [97], 6 [98], 7 [99]. They are of two kinds, according to the liquid used for them; 1, *anuvâsana* or 'oily enema,' for which oleaginous substances (*sneha*) alone are used; 2, *vasti* or *dâṭhâpana* or *niruha*, for which other liquids, besides oil, may be used. The latter are again of two kinds according to the size of the tube used for them: 1, *vasti* or 'clyster *per anum*' and *uttara-vasti* or clyster *per urethram*.' *Vasti* is also a general name for all of them: see v. 283. In v. 305 *dâṭhâpana* occurs as a synonym of *uttara-vasti*. In S., IV. 35 [80] clysters (*vasti*) are differently divided into two kinds: (1) *nairûhika*, made with honey and oil (*madhu-taillika*), also called *dâṭhâpana* because they 'establish' *vayus*, vigour, and *âyus*, long life, and *niruha* because they 'remove' (*nirharana*) vitiated humours and diseases, and *yâpana*, or *yukta-ratha*, or *siddha-vasti*; and (2) *snaihika*, made with oleaginous substances, also called *anuvâsana*, or *anudâsana*. On the size of the tube, see S., IV, 37 [87] (v. 950).

[143] *Vardhana* (or *srodhana*) is the same as the *vriddhi* or enlargement of the *phala-kôśa* or 'scrotum' of the Nid., p. 143, which enumerates seven varieties, such as *vakta-ja* or 'hematocele,' *mûtra-ja* or 'hydrocele,' and *antraja* or 'scrotocele' or 'hernia' generally.

[144] I have not been able to trace elsewhere either this or the next Balâ formula. But there is some distant resemblance to the formulas given in Ch., VI. 29 [83] (vv. 117, 118), SY., XXII. 82 [92], V., XXII [89] (v. 240), Chd., XXII, 63 [77] and Ch., VI, 30 [84] (vv. 48-50). Compare also the directions in S., IV, 15 [40] (vv. 26, 40, 43). In all these references *Sairêyaka* or *Sairîyaka* is the same as the *Sahachara* of our Manuscript. See also the two formulas for Râsnâ oils in Ch., VI., 28 (v. 160) [78] and (v. 167-170).—The meaning of the concluding direction is that Râsnâ and the other three drugs may severally be substituted for Balâ in which case the resulting oils are named after those drugs respectively.

[145] On the *gandha*, or 'aromatic drugs,' see Part I, note 28. This class contains, however, many other drugs besides, a large number of them will be found enumerated in AH., VI, 27 [85] (vv. 36-41) in the formula for preparing the *Gandha-taila* or 'the aromatic oil.'

(III) A *third* BALÂ Oil,[144]

in 7 ślôka.

(280—286.) Let a learned *physician* take one hundred well-measured (palas of) roots of Balâ (*Sida cordifolia*), and boil them in one drônas of water, till *the whole* is reduced to one-fourth *of the original quantity*. (281) Now add ten more pala of Balâ (*Sida cordifolia*), made up with milk into a paste, also two âḍhakas of oil made from decorticated[146] sesamum, (282) and boil *the whole* with four times the *latter* quantity (*i.e.*, eight âḍhaka) of milk over a gentle fire. In this manner the oil should be boiled ten times. (283) This Balâ oil is an approved remedy for numerous diseases. It is recommended *to be used* in the form of a draught or a liniment or an *ingredient of one's* food or an errhine or an enema[147], (284) in all diseases connected with the seasons, and those accompanied with hemorrhages, also in diseases of the womb of women[147] or of the semen of men. (285) It cures dryness of the palate, morbid thirst, morbid heat, severe pains in the side, unhealthy menses, drying up and wasting of the body, madness, and erysipelas.

Tenth Leaf: Obverse.

(286) It lengthens life, promotes strength, and relieves cough and asthma; in fact, this oil may be administered as a general remedy for all diseases.

(IV) The AMṚITA Oil, [148]

in 25 ślôka and 1 pâda.

(287—312*a*.) The two truth-speaking Aśvins, the divine physicians, honoured by the Dêvas, have declared the following excellent oil which promotes plumpness, (288) relieves all diseases, is fit for a king, and is as good as ambrosia. It is known by the name of Amṛita (or 'ambrosia') and is an oil able to make men strong. (289) At the time of Pushya[149], after having said prayers[150], performed purificatory rites, and asked the Brâhman's blessing in a few words, take out liquorice-roots grown in a favourable place. (290) Of the fresh juice of these roots let a clever *physician* take four pâtras, and add four palas each of *the following drugs:* Prapauṇḍarika[151], Amṛita (*Tinospora cordifolia*), knots of the root-stalk of the lotus, Śatâvarî (*Asparagus racemosus*), (291) Śṛingâṭaka (*Trapa bispinosa*), emblic myrobalan, Udumbara (*Ficus glomerata*), Kaśêruka (*Scirpus Kysoor*), the bark of each of the (five) trees with a milky sap[152], (292) roots of Kuśa (*Poa cynosuroides*), Kâśa (*Saccharum spontaneum*), and Ikshu (*Saccharum officinarum*), also of Śara (*Saccharum Sara*) and Vîraṇa (*Andropogon*

[144] On the object and method of decortication, or cleansing of sesamum, see Phar. Ind., vol. III, p. 29, in the Jury Reports of the Madras Exhibition.

[145] The *synapsal* or 'afflictions' of the *pâsi* or 'womb' are said to be twenty. See Nid., p. 241, V., LXVIII [103] (v. 91); Wise, p. 280.

[148] I have not been able to trace this formula elsewhere. It is a phenomenally long one, consisting of no less than eighty-three ingredients, actually named (*i.e.*, forty in the first and forty-three in the second part), besides others not named, but permitted. A few, indeed, are repeated in the second part.

[149] *Pushya* is one of the twenty-seven lunar asterisms, the sixth according to the older reckoning. It is one of the auspicious times for undertaking medical treatment. See, *e.g.*, AH., VI, 39[103] (v. 54). Ibidem, II, 1 [103] (vv. 38*b*-39*a*) a ceremony to insure the conception of a male child (*pumsavana*) is directed to be performed in Pushya time. See also ibidem, VI, 35 (comm. to v. 27).

[150] For an example of such a prayer, see Dr. Wise, p. 134.

[151] See Part I, note 54.

[152] See Part I, note 69.

muricatus)[153], also roots of Gundrâ (*Panicum uliginosum*), of Naḍikâ (*Phragmites Karka*)[154], and of the lotus, (293) Vadarî (*Zizyphus Jujuba*), Vidârî (*Ipomoea digitata*), Vêtasa (*Calamus Rotang*), Aḍurûshaka (*Adhatoda vasica*), Nîm, Sâlmalî (*Bombax malabaricum*), dates, cocoanut, Priyangu (*Aglaia Roxburghiana*), (294) Paṭôla (*Trichosanthes dioica*), Kutaja (*Holarrhena antidysenterica*), raisins, leaf-stalk of the lotus, sandal, Kakubha (*Terminalia Arjuna*), Aśvakarṇa (*Shorea robusta*), Lâmajjaka (*Andropogon laniger*), and plumbago-root, (295) also other astringent, sweet or cooling drugs, as many as may be obtainable. Boil all these in two droṇa of water, (296) and when *the whole* is reduced to one-eighth *of the original quantity*, boil in it pastes made of fine powder of one pala each of the following drugs: Balâ (*Sida cordifolia*), Nâgabalâ (*Sida spinosa*), Jîvâ (*Dendrobium multicaule*), cowhage, Kaśêruka (*Scirpus Kysoor*), (297) Nata (*Tabernæmontana coronaria*), mercury[155], Śvṛikkâ (*Trigonella corniculata*), small cardamoms and cinnamon-bark, Jîvaka[71], Ṛishabhaka[71], Mêdâ[71], Madhuka (*Bassia latifolia*), and blue lotus (298), the colour producing saffron, aloe-wood, and cinnamon-leaves, Vidârî (*Ipomoea digitata*), Kshîrakakôlî[85], Vîrâ (*Uraria lagopodioides*), and Śârivâ (*Ichnocarpus frutescens*), (299) Śatâvarî (*Asparagus racemosus*), Priyangu (*Aglaia Roxburghiana*), Guḍûchî (*Tinospora cordifolia*), filaments of the lotus, Lâmajjaka (*Andropogon laniger*), red and white sandal, and fruits of Râjâdana (*Mimusops hexandra*), (300) pearl, coral, conch-shell, moon-stone, sapphire, crystal, silver, gold, and other gems and pearls, (301) liquorice, madder, and Aṁśumatî (*Desmodium gangeticum*). Boil *the whole* slowly over a gentle fire (302) with four pâtra[a] of (sweet) oil and eight times as much of milk, adding also vinegar of rice[156] one-half as much as the milk. (303) This boiling should be repeated a hundred or even a thousand times; and when it is thoroughly done, it may be known by this sign, (304) that on the arrival of the proper time the oil stiffens by the mere *exposure to the* rays of the sun.[157] After asking Brâhman's blessing, performing purificatory rites and saying prayers, (305) this Amṛita (or 'ambrosial') oil, highly esteemed by the Dêvas, may be administered *to the patient*, in the form of an injection per anum or per urethram,[142] or as a draught, or an errhine, or a liniment.

[153] The five drugs from *Kuśa* to *Virana* are known as the *triṇa-pañcha-mûla*, or 'set of roots of five grasses.' See Mat. Med., p. 296; also S., I, 38 [44] (v. 65), Chik., XXXII, 4 [6].

[154] *Naḍikâ* is the same as *Naḍa*, which is similarly mentioned, as a root, in Part I, p. 6, verse 72, together with *gunḍrâ*.

[155] The original text has *rasa*. The context shows that this word is here used as a technical term, *i. e.*, as the proper name of a particular drug. The only drug of which it commonly serves as a proper name is mercury; *see, e.g.*, DhN., VI, 9. RN., XIII, 105. As a neuter noun (*rasam*) it is also said to be a proper name of myrrh (*bôla*); see DhN., III, 25; but here RN., VI, 117, has *su-rasam*, though in its Pariśishṭa (Appendix), XXIII, 3, v. 53, it adds *rasam*. As a name of mercury, the word is both masculine (*rasaḥ*) and neuter (*rasam*); see RN., *ibid.* As in our formula the word is used in the accusative case, it is impossible to determine its gender; but there can probably be little doubt that it is not the word for myrrh; for that drug is little used by the Indians, and was introduced into India through the Greeks; for its proper name is *bôla* (both masc. and neut.) which is the Greek βδλος, lump, as shown by its synonym *piṇḍa*, lump; see Phar. Ind., III, p. 305. The word *rasa* is also a proper name of taste, and of chyle; but of course, neither of these two is applicable in our formula. As a common name the word *rasa* is of frequent occurrence, denoting the juice of any plant (sap) or of flesh (broth), or generally any liquid substance; but when so used, it is always defined either explicitly by the addition of a specific word (as in *ikshu-rasa*, juice of sugar-cane, or *mâṁsa-rasa*, juice of flesh), or implicitly by the context (see below, footnote 335); for examples, see the Index, s. v. *rasa*. All these meanings are out of the question; for in our formula, *rasa* is clearly a proper name of a drug; and as that cannot well be myrrh, it must be mercury. This is the only place, where mercury is mentioned; but it shows that *rasa* as a word for mercury, and therefore the use of mercury as a drug, was known in India as early as the 6th century at least. It may be added that mercury is of rare occurrence in works on general medicine, even of a late date, such as the Ashṭâṅga Hṛidaya. This work has it twice, as *rasêndra* in VI, 13, v. 26, and *pârada* in VI, 34, v. 31. Suśruta has it as *sûtaka* in V, 3, v. 19; and as *pârada* in IV, 25, v. 38. Charaka VI, 3, v. 124, mentions it as *rasêśhvara-bîjôttama*.

[156] On *kâñchika* or 'vinegar of rice,' see Part I, note 23.

[157] This has been conjecturally restored after an indication in AH., VI, 39 [43] (v. 170), where it is said with regard to the preparation of a certain kind of medicated clarified butter: *pâtrê lôhamayê tryahaṁ ravi-karair-âdîpayan pâchayêt*, *i.e.*, 'let a man, stirring, boil it for three days in the rays of the sun in an iron vessel.' See note 53.

Tenth Leaf: Reverse.

(306) It serves the purpose of relieving diseases and imparting strength to the organs of sense. For those who suffer from morbid heat and thirst it makes an excellent and beneficial liniment. (307) It promotes the growth of hair in the old and that of the body in the young; it produces loveliness and blessedness[138] in women; and also *ensures* numerous offspring, (308) for by the use of this ambrosial oil, women are predisposed to conception. It cures the eighty nervous diseases[140], also those due to *derangement of* the blood or the bile (309) or the phlegm or all the humours concurrently[139]. By its use as an errhine or a liniment the eyes become as sharp as those of an eagle. (310) It keeps off calamities, averts ill-fortune, and promotes prosperity. By the use of this oil the Maharshi Chyavana[139] regained (311) his youth, and was delivered from decrepitude and disease; and the blessed Maharshi Mârkaṇḍêya[139], who was desirous of a long life, (312*a*) obtained his desire by the regular use of this oil.

(V) A Mûlaka Oil,[141]

in 6 ślôka and 1 pâda.

(312*b*—318*a*.) Take tender radishes without their leaves, and boil one âḍhaka[a] of their juice (313) over a gentle fire, together with one âḍhaka each of curds, vinegar of rice[150], milk and (sweet) oil. (314) Also there should be boiled with it[a] pastes of * Râsnâ (*Vanda Roxburghii*), Balâ (*Sida cordifolia*), Gôkshuraka (*Tribulus terrestris*), rock-salt, Śigruka (*Moringa pterygosperma*), Vachâ (*Acorus Calamus*), plumbago-root, ginger, long pepper, Gajapipdali (*Scindapsus officinalis*), (315) Bhallâtaka (*Semecarpus Anacardium*), and Prativishâ (*Aconitum heterophyllum*). This Mûlaka (or 'radish') oil is much recommended as beneficial to men (316) in paraplegia,[139] lumbago, sciatica, and apoplectic convulsions. Barren women also are by it predisposed to conception. It also averts calamities, (317) and removes obstruction and relaxation in the case of scrotal enlargement[141] or displacement of the bladder and of the joints respectively.[154] All these diseases are driven off by drinking the radish-oil, (318*a*) just as a furious elephant, by a skilfully applied goad.

[138] *Saubhâgya* is blessedness arising from being a *subhagâ*, a woman blessed with children, and therefore beloved by her husband; see note 3 on p. 77.

[139] This passage would seem to imply the doctrine of a tetrad of humours; for nervous diseases are those due to vitiated air. On this subject, see Part I, note 76.

[140] He is the reputed author of the Mârkaṇḍêya Purâṇa, and was remarkable for his great age, whence he was called *Dîrgh-âyus* or 'the long-lived.'

[141] This formula is found in a different recension, re-arranging the ingredients, in V., XXII [264] (vv. 525-528). In a third, but more enlarged recension, it occurs in Ch., VI, 28 [708] (vv. 162-164) and Chd., XXII, 69 [247]. In this recension there are eight drugs in addition to the twelve given in our recension and in that of Vaṅgasêna.

[150] The construction in verses 314 and 315 is rather awkward. The causal *pêchayêt* has a double accusative, the drugs *vâsâ*, etc., as well as the before-mentioned decoction; also it has the instr. *garbhêṇa saṅsa*, which refers to the drugs *vâsâ*, etc. More literally the passage may be translated thus: 'then having *Râsnâ*, *Balâ*, etc., with their paste let *it* be boiled.'

[139] On paraplegia see Nid., p. 107. It appears to be the same as the disease called *paṅgu* in Wise, p. 254, No. 19.

[154] *Stambhana* or 'obstruction' refers to scrotal enlargement and displacement of the bladder, and *srañsana* or 'relaxation,' to the joints; compare verse 335—*Kuṇḍala* is one of the thirteen forms of *mûtra-ghâta* or 'retention of urine,' in which *stambhana* or 'painful obstruction in the passage of urine' is one of the symptoms. See its description in Ch., VIII, 9 [808] (v. 49), and Wise, p. 366. AH., III, 9 [274] (vv. 20-23*a*) and Nid., p. 125, enumerate only twelve forms, of one of which *kuṇḍala* is a sub-variety.

(VI) *Another* MŪLAKA Oil,[145]

in 6 ślōka.

(319—324.) Take one prastha[a] each of curds, vinegar of rice, vinegar of Māsha (*Phaseolus Roxburghii*), juice of the sugar-cane, juice of radishes, (sweet) oil, and vinegar of jujubes[146], (320) also one part (*i.e.*, one pala) each of the following seven drugs: *Rāsnā (*Vanda Roxburghii*), Balā (*Sida cordifolia*), Aśvagandhā (*Withania somnifera*), liquorice, ginger, deodar, Syōnāka (*Oroxylum indicum*).[147] (321) Boil this Amṛita (or 'ambrosial') preparation, slowly over a fire of cowdung, then remove and place it aside to be used according as it may be most beneficial. (322) They say that (according to the nature of the disease) it may be taken with one's food or administered as an errhine or an enema.[142] In the case of enlargements of the abdomen due to *the derangement of* the humours[121], and of rheumatism of the limbs, it should be administered as a liniment, (323) also in the case of sciatica, abdominal tumours due to *derangement of the* air, disorders of the womb, and pressure of the air downwards. It is also said to be beneficial in the case of colic and spleen. (324) It is a tonic medicine composed by Vāḍvali[148], and is known by the name of the MŪlaka (or 'radish') oil. It may be administered to men suffering from the loss of their virile power,

Eleventh Leaf: Obverse.

and to women desirous of offspring.

(VII) A *third* MŪLAKA Oil,[149]

in 4 ślōka.

(325—328.) Take one prastha[a] each of the juice of radishes and of milk, and boil it, and when it has turned into curds, add one prastha of sweet oil. (326.) Throw in also pastes, made with water, of half a pala[a] each of powder of liquorice, *Rāsnā (*Vanda Roxburghii*), Pāṭhā (*Stephania hernandifolia*), molasses, and ginger, (327) also one karsha[a] of salt, and then boil the whole slowly over a gentle fire. When the oil is ready boiled, two pala of it may be drunk before one's meal. (328) One's food should be prepared

[145] This formula is only found in Ch., VI, 28 [193] (vv. 167-170). But there its two parts exchange places, for the recension in Charaka begins with *Rāsnā* (v. 320), and hence the formula is there called *Rāsnā-taila* or 'the Rāsnā oil.' Moreover, in Charaka, *Balā* is omitted and replaced by three other drugs, *Śiriśa* (Albizzia Lebbek), *Sahachara* (Barleria cristata), and *Triḥśaṭa* (Tribulus terrestris); thus making the number of the drugs to be ten, and accordingly ten pala (*i.e.*, one pala of each) are directed to be taken. In our recension there are only seven drugs, and the quantity of each is not defined, but 'one part of each' evidently means 'one pala of each' of the seven drugs. In the formula of Charaka (unfortunately missing in the old Nepal manuscript) there is clearly an error. Instead of *sahachar-dantīdā* probably *sahachardā saṃtīdā* should be read. Otherwise we should have eleven drugs to the ten pala. The commentary in Gaṅgādhar's edition, indeed, explains that ten pala should be taken of each of the eleven drugs. But the phrase *dāḍim dala palāś-bhagna-kuṭajāṃ-syaikapaṭē* cannot have that meaning; that would require the addition of *pṛithak pṛithak* or *pratyēkataḥ* or some similar term.

[146] On these three kinds of vinegar see Part I, note 23. *Āranāla* is the same as *kāñjika* or *dhanyāmla*; see AH., VI, 36[334] (v. 71, commentary).

[147] The phrase *syōnāka-saptamānāṃ bhāgāṃ dadyāt* is awkward: it should be *syōnāka-saptamaṃ śēṣāṇāṃ bhāgāṃ*, i.e., Syōnāka being the seventh; of these take one part each. The genitive *syōnāka-saptamānāṃ* really presupposes all the preceding names in composition: *rāsnā-bal-āraṇyadāḍ-madhuka-mahāsahāha suvaidūrya-syōnāka-saptamānāṃ bhāgāṃ*, etc.

[148] One of the ancient Indian physicians; otherwise unknown. A certain Vāḍvali is mentioned in the second Vārttika of Kātyāyana to Pāṇini 6, 3, 109 (see Kielhorn's edition of the Mahābhāshya, Vol. III, p. 174), who, therefore, must have lived a considerable time before Christ.

[149] This formula is only found in Ch., VI, 28 [193] (vv. 132, 133), but in a more concisely and more definitely formulated recension. As it is a good example of a later and improved version, I may quote it here. It runs thus: "Take juice of radishes and milk in equal quantities, and put into it curds for three days; when the whole has turned sour, take three prastha of it, and boil it with one prastha of (sweet) oil as well as with a paste made of one pala each of liquorice, sugar, rāsnā, salt, and both fresh and dry ginger. As a draught, as well as a liniment, this is a remedy for nervous diseases."

in a *plain* fashion without fat, and should consist of boiled split-pulse and rice.[170] It is a medicine recommended to barren women who desire to give birth to a son.

(VIII) The SAHACHARA Oil.[171]

(329—336.) Take one hundred (pala[a]) of Sahachara (*Barleria cristata*) with their roots, leaves and twigs, mince them finely, and boil them in four drôṇa[a] of water, (330) till *the whole* is reduced to one drôṇa. Then strain *the decoction*, and boil it *again* slowly with a paste made of ten pala of the roots of Sahachara (*Barleria cristata*) in one âḍhaka[a] of (sweet) oil. (331) Strain it again, and while it is still fairly warm, throw in eighteen pala of sugar. After stirring this well, put it by for use. (332) It is highly recommended to be used in the form of an enema[172] or a draught or a liniment or an errhine. Paralysis of a single limb[173], or of a whole side of the body, cramps of the jaw or of the head, (333) facial paralysis, tic convulsive, insanity, palsy of the whole body, fever, sciatica, abdominal tumours due to *deranged* air, demoniacal possession, (334) epilepsy, emprosthotonos, paraplegia, glossitis[174], goitre, displacement of the bladder[175], scrotal enlargements, contracture of the hands or the knees, (335) *and* loosening or trembling or drying up of the knuckles and joints: *all these evils* are relieved by this oil, which scatters them, just as the storm-wind scatters the clouds. (336) In case no sugar be at hand, the oil may be boiled with milk. In order to subserve the destruction of a host of diseases, it has been ordained by the Self-existing God.

(IX) The MADHUYASHṬIKA Oil.[176]

(337—343.) Boil one prastha[a] of oil made from decorticated[177] sesamum seeds, with four times as much of milk and one pala[a] of liquorice. (338) Give it a gentle boiling, and, when ready, repeat the process of boiling again and again, until one hundred (pala[a]) of liquorice have been boiled in. (339) Having thus given to it a hundred boilings, put it by for use. It is recommended as a draught and as a liniment, also for enemas and errhines. (340) Taken in one's food it is as good as ambrosia for curing people suffering from phthisis. Taken as a draught, it relieves heart-diseases, morbid dryness of the palate, abdominal tumours due to bile, hysterical convulsions, (341) morbid thirst, insanity, erysipelas, asthma, cough, unhealthy menses, excess of *vitiated* air, pressure of it in all directions, pressure of it upwards, (342) jaundice, fever, and morbid pallor[b], suppuration due to *deranged* phlegm, internal heat, boils, psoriasis, (343) and

[170] *Śûpôdana* is the dish known in modern India as *dâl-bhât*.

[171] According to Dr. Cordier, this formula is found in a nearly identical recension in the Hârîta Saṁhitâ. In another recension which combines the two options (sugar or milk) in the same formula, it occurs in Ch., VI. 28 (vv. 140, 141). A third recension is given in AS., IV, 22 [169] (ll. 8-13) and in AH., IV, 21 [67] (vv. 69-72a). Here the option of our formula is broken up into two separate optional formulæ. The oil may be prepared either with milk, but without any sugar; or it may be prepared with sugar (without milk), but in that case, instead of the paste of Sahachara, pastes made of ten other specified drugs should be used. This recension, moreover, is expressly ascribed to the physician Ibêḍa, in whose Saṁhitâ, according to Dr. Cordier (Rec. Doc., p. 7) it occurs in chap. 24, vv. 39, 40. There is still a fourth recension in the V., XXII [75] (v. 258-259), which is a compromise between those of Ch. and the AH. It combines the options of sugar and milk, but for the paste of Sahachara it substitutes pastes made of nineteen other specified drugs, nearly all of which, however, differ from those in AS. and AH.

[172] On *ûshaka* or *ûḍha*, glossitis, see Nid., p. 208; also Med. Dict. It is to be distinguished from *ûlasaka*, tympanitis.

[173] This formula is found, though in a much more concise recension, in V., IX [58] (vv. 132-133), under the name of *Śatapâka-taila* or 'Oil of one hundred boilings.' I have not been able to trace it elsewhere.

Eleventh Leaf: Reverse.

whatever other diseases, of their own kinds, there are . . . . . , all these are relieved by this oil, just as the dust is laid by the advent of the rains.

(X) An AŚVAGANDHÂ Oil.[174]

(344—350*a*.) Measure out one hundred palas[a] of roots of Hayagandhâ (*Withania somnifera*) and boil them in a vessel with pastes made of one karsha[a] each of powder of the following drugs: liquorice, ginger, deodar, Śatâvarî (*Asparagus racemosus*), madder, Nalada (*Nardostachys Jatamansi*), Kushtha (*Saussurea Lappa*), the two Karanja[175], Varshabhû (*Boerhaavia diffusa*), (346) leaf-stalk of the lotus, Śatapushpâ (*Peucedanum graveolens*), Surasa, (*Ocimum sanctum*), *Râsnâ (*Vanda Roxburghii*), Payasyâ (*Gynandropsis pentaphylla*), zedoary, roots of Pushkara[12], Sthirâ (*Desmodium gangeticum*), *Dravanti (*Ipomoea reniformis*), Payasyâ (*Oxystelma esculentum*).[176] (347) Now boil the whole over a gentle fire in one âḍhaka[a] of oil, and four times its quantity of milk. (348) When it has finished boiling gently, put by the oil in a clean vessel. *It may be administered* in the form of a draught or a liniment or an enema, or used in the process of maceration.[177] (349) People *may use it* who suffer from apathy, dumbness, lameness, stammering, paraplegia, or facial paralysis, from loss of memory, from festering splinters of bone in the side, from dislocation or comminuted fracture of the bones and joints,[178] from stumbling, (350*a*) from debility of or injury to the semen, from sterility caused by jealousy, and from lock-jaw.

(XI) Another AŚVAGANDHÂ Oil,[174]

in 15 ślôka and 1 pâda.

(351—366*a*.) Cut in pieces half a tula[a] of roots of Aśvagandhâ (*Withania somnifera*) and boil it in a drôṇa[a] of water, till *the whole* is reduced to one-eighth *of its original*

[174] This and the following are merely varieties of the same formula. They contain pastes of twenty and twenty-four drugs respectively, of which they have sixteen in common. Neither of them, however, I have been able to trace elsewhere. The nearest is an Aśvagandhâ formula in V., XXII[205] (vv. 531-536), in which the general outline is the same, but nearly all the drugs differ. The quantity of water, directed in it to be taken, is one drôṇa, which is equal to four âḍhaka.

[175] *Dvê Kâraṇjê*, "or 'the two Karañja,' are the *Karañja* (Pongamia glabra) and the *Pûti-karañja* (Caesalpinia Bonducella, or 'The Bonduc nut'), the properties of which are said to resemble one another. See Mat. Med., p. 153.

[176] *Payasyâ* occurs twice in this formula. It is a name of several plants; but such a repetition of the same term is most improbable. There is probably an error. The text of this formula is much out of order. *Payasyâ* as well as its synonyms *dugdhikâ*, *kshîrî*, etc., are applied to a great variety of milky plants, and are descriptive rather than proper names. See Phar. Ind., vol. II, p. 457; also Dutt's Translation of the Suśruta, pp. 75, 180, 195.

[177] *Bhâvana* or 'maceration' here probably refers to the preparation of eatables, or preserves in oil, and corresponds to the term *bhâjana* in other formulas. *See ante*, note 28.

[178] The term *bhagna* or *bhinna* denotes generally any kind of lesion of a bone (*asthi* or *kaṇḍa*) or a joint (*sandhi*), whether caused by an accident (*âgantu*), or by a rheumatic, gouty, or tuberculous condition (*vâta*, or *vâta-vyâdhi*). See S., III, 1[36], where *bhagna* denotes not only a fracture, but also a dislocation (*sandhi-mukta*, *chyuta*), or a curvature (*vakra*); see *Nid.*, p. 92, where *asthi-bhagna*, lesion of bones, is mentioned as one of the symptoms of *vâta-vyâdhi*. *Bhagna* is said to be sometimes due to *dâkshêpana*, or a wrench, causing distortion or deformation of limbs or joints. Hence S., III, 1[37] (v. 508,) enumerates among the *vâtavyâdhi* four kinds of *âkshêpaka*, distortion or convulsion. Hence *kshipta* (v. 359) means distorted or convulsed, and *vakra-bhagna*, distorted or deformed by rheumatism, gout, or tuberculosis. Both terms occur in this sense in the Atharva Veda, VI, 109, *kshipasya or vâti-kṛitasya bhêshaja*, remedy for one who suffers from convulsions or from rheumatism, etc., see note 303. The terms *pakṣha-kṛiat-bradhagna* (v. 349) and *pakṣha-tin-bradhagna* (v. 358) are probably synonyms, and denote that kind of *bhagna*, lesion, which S., III, 15[48] calls *asthi-chhallita*, and which he explains to mean *pârśvasyâsthi-kiñ-chidgata*, i.e., a splinter, or denuded piece, of bone which has appeared in the side. So also, the terms *chyuta-aṁsa-pârśva* (v. 349) and *chyuta-bhagna* (v. 358) would seem to be synonymous, denoting loosened or displaced, and comminuted or fractured bones or joints.

quantity. (352) Then mix into it one Âḍhaka[a] of oil, and add four times as much of milk. Now boil *the whole again* in a kettle, throwing in *at the same time* pastes of the following *drugs*: (353) cardamoms, dill-seeds, Kushṭha (*Saussurea Lappa*), Vyâghranakha (*Unguis odoratus*), cinnamon-bark, liquorice, ginger, deodar, Balâ (*Sida cordifolia*), Sthirâ (*Desmodium gangeticum*), (354) *Râsnâ (*Vanda Roxburghii*), roots of Pushkara[12], Bhûtikya (*Andropogon Schœnanthus*), Punarnavâ (*Boerhaavia diffusa*), madder, Nalada (*Nardostachys Jatamansi*), cinnamon-leaves, *Dravanti (*Ipomoea reniformis*), Surasa (*Ocimum sanctum*), Vachâ (*Acorus Calamus*), (355) Śvadaṁshṭrâ (*Tribulus terrestris*), leaf-stalk of the lotus, Payasyâ (*Gynandropsis pentaphylla*), Bahuputrikâ (*Asparagus racemosus*). Having thrown in pastes made of one aksha[a] each of those drugs, boil *the whole*, (356) and when it is ready, take it undiminished[179] down at once *from the fire*. *This oil* may be used in the form of a potion, or of an enema, or of a liniment, or of an errhine, or in the preparation of one's food. (357) Now, listen to the enumeration of the diseases in which it may be administered *in any of those forms*. It may be given to people who suffer from lameness or dumbness, from paraplegia or facial paralysis, (358) from festering splinters of bone in the side, from dislocation or fracture of the bones or joints, or to people whose elements[180] are impaired or deformed through *generally deranged* air, (359) or who suffer from lock-jaw, gout in the hands[181], or morbid secretion of urine, or convulsions due to *deranged* air, or who suffer from deformations through *deranged* air[178], or from debility or impaired senses, (360) also to men whose semen is exhausted, or to people who are suffering from sterility caused by jealousy,

Twelfth Leaf: Obverse.

or whose minds are oppressed by demoniac influences or by a combination of two disordered humours,[182] (361) or who suffer from remittent fever, abdominal tumours due to *deranged* blood, deep-seated abscesses, sciatica, spleen, abdominal tumours due to *deranged* air, and . . . . . (362) Also women *should take it* who suffer from any disease of the womb[183], and . . . . . , and who do not conceive when the time of puberty has arrived, (363) also such as have a protracted parturition, as well as such as are barren, or suffer from some defect in the womb. A barren woman who (preparatory to cohabitation) has bathed herself after menstruation is sure to conceive; there is no doubt about this. (364) In fact, it should be given to a woman at once when she has taken her bath after a period of menstruation. It is an excellent preparation to produce strength and colour, and to create intelligence and (365) memory. It is altogether a very effective strengthening medicine which cures all diseases and causes children to grow. (366*a*) It is an ambrôsia-like medicine which may be administered in all four forms.[183]

[179] *Avikkâkta*, as a medical term, is unknown. Kaviraj B. B. Gupta suggested the meaning 'undiminished.' Apparently it indicates that the mixture is not to be boiled down, or reduced to one-fourth, or one-eighth, but is simply to be brought to the point of boiling, and then removed from the fire. It is, therefore, the opposite of *avatishṭa* or *avaśêshita*.

[180] See Part I, note 34; also *ante*, note 141.

[181] *Khaḍa* is not noted in any dictionary. The translation 'gout in the hand' has been suggested by *khaṭaka*, which in Mod. Dict. is stated to mean *kubjita-pâṇi*, deformed hand. Compare also *khalli*, explained in note 194.

[182] *Sanṁrishṭa*, if correctly restored, is a synonym of *sansarga*; see Aruṇadatta's commentary to AH., III, [11] (v. 32).

[183] By the "four forms" are probably meant the following: 1. *pâna* or 'potion,' 2. *abhyaṅga* or 'liniment,' 3. *vasti* or 'enema,' and 4. *nasya* or 'errhine.' These four forms are enumerated above in verse 356, also verses 305, 332, 339, *et passim*. Both Charaka and Suśruta give this four-fold division; thus, S., IV. 31 [68] (§ 13) divides medicated *sneha* (oils, etc.) into three classes: *khara* or 'thick,' *madhyama* or 'middling,' and *mṛidu* or 'soft,' 'thin,' and says that a *pâna* should be *mṛidu*, while an *abhyaṅga* and a

(XII) The ŚVADAṂSHṬRĀ Oil,[184]
in 12 ślôka.

(366*b*—379*a*.) I will now explain the Śvadaṁshṭrā oil[185] (367), by the proper application of which men's nervous diseases[186] may be overcome. Listen to me! Nabhas and Nabhasya[186] are the two best months of the seasons (368), in which numerous *medicinal* plants spring up on the face of the earth, made to grow by the showers which fall from the seasonable rain-clouds (369) on the ground covered with the young crops. Then take up *that plant* at a time when it has yet no flowers nor fruit, as it grows in the field in a healthy and good condition; (370) and having collected it at an auspicious moment, on a favourable day, put it in a clean state in a clean wooden mortar, and pound it. (371) Then strain as much as one *âḍhaka*[a] of its juice through a piece of cloth, and add to it one *prastha*[a] of oil and four times as much of milk, (372) also eight *pala*[a] of molasses, and six pala of ginger. After boiling *the whole*, let it stand in a pure, clean and spotless vessel. (373) Of this *preparation* a small quantity may be drunk at a time, and *afterwards* one should drink milk . . . . . , and eat molasses, together with ginger, (374) and when the oil is digested, one may partake of Shashṭika rice[187] cooked with milk. Now, listen, as I tell you the diseases which it relieves. (375) It is an excellent oil . . . . . , and most highly valued as a remedy for people afflicted with nervous diseases. (376) It is unsurpassed, indeed, as a medicine[188] promoting the growth of men's strength and health. It removes the *vitiated* air, when it has penetrated through the whole body, (377) . . . . . and such as are moving about. It cures paralytic shaking and trembling. It is also beneficial to people suffering from sciatica, (378) also in the case of fistula in ano, skin-diseases, and abdominal tumours, also to people suffering from epilepsy, and to young women who suffer from diseases of the womb.

Twelfth Leaf: Reverse.

(379*a*) All these diseases it infallibly destroys, just as the thunderbolt destroys the Asuras.

(XIII) An Oil for an Errhine for Headache.[189]

(380—382.) Boil one *kudava*[a] of oil with twice as much of the juice of chebulic

nasya should be *madhyama*, and a *vasti* should be *kharo*. Charaka says: *kharô 'bhyaṅgê, snêhêshv-anasyê, pânê vastau cha madhyamaḥ*.- I.e., *Jêy* ointments (an oil) should be thick, for an errhine it should be soft, and for a potion or enema it should be middling.' See also S., IV, 31 [8] (§ 1), where some subdivisions are enumerated; also AS., V, 8 (p. 189, l. 15,) and AH., V, 6 (v. 19-21). A different four-fold division, applicable to oils applied to the head, is given in AH., I, 22 [32] (v. 23), and Mat. Med., p. 18. This division, of course, cannot be here intended.

[184] This formula is found in another, but very much contracted, recension in Ch., VI, 18[20], (vv. 142, 143). In a third recension it is given in V., XXII [83] (vv. 612-614). In this the ingredients are the same, but all the proportions differ.

[185] The construction of the original text is here very awkward. *Śvadaṁshṭrâ-oḍa-nirjyasya* seems to form a compound phrase, meaning 'curing nervous diseases by means of *śvadaṁshṭrâ*.' But I would suggest to read *śvadaṁshṭrâṁ vôḍa-nirjyasyaṁ*.

[186] *Nabhas* and *Nabhasya* are the two months of the rainy season, usually called Śrâvaṇa (July-August) and Bhâdra (August-September). On the seasons, see Part I, note 76.

[187] *Shashṭika* (*scl. vrîhi*) or 'sixty-days' (rice), also called *gaura-shashṭika* or 'the white sixty-days' rice' (see V., LXXXVII [107], verse 2*a*), is a white variety of rice which ripens in sixty days from the sowing, between Jyêshṭha (May-June) and Śrâvaṇa (July-August). This and the red varieties of rice (*raktaśâli* or *lôhita-śâli*) are considered the most superior for the dietary; see Ch., I, 27 [180] (vv. 7, 8); S., I, 20 [77] (§ 2); AH., IV, 8 [109] (v. 120). The red variety, accordingly, is often simply called *śâli*, i.e., 'the (wholesome) rice'; see Ch., I, 3 [18] (§ 1), V, LXXXVII, verse 1*a* [109].

[188] For *vîrita*, see v. 143. It is not the name of the formula; *adasa* is a particle of assevention.

[189] This formula is found in a more concise recension in Ch., VI, 26 [189] (vv. 273-277), and Ch., LV, 52 [105]. In another still shorter recension, omitting the proportions, it occurs in V., LXII, [79] (v. 180), and AH., VI, 24 [45] (vv. 44*b*-45). See also *infra*, note 427.

myrobalan, throwing in also pastes of one karsha[9] each of the following drugs: (381) liquorice, Prapaunḍarika[181], fresh blue lotuses, long pepper, and sandal. This oil should always be administered with two fingers as an errhine.[180] (382) It cures any complaints in the head; it even restores the black hairs of an old man, after *being used for* one year.

(XIV) An Oil for an Antifebrile Enema,[191] in 3 ślôka.

(383—385.) *Take* Jîvanti (*Dendrobium multicaule*), liquorice, Mêdâ[71], long pepper, Madana (*Randia dumetorum*), Vachâ (*Acorus Calamus*), Riddhi[72], *Râsnâ (*Vanda Roxburghii*), Balâ (*Sida cordifolia*), bêl, dill, Śatâvarî (*Asparagus racemosus*), (384) and having made them into a paste, boil *the whole* in milk and water, together with clarified butter and oil. This oily enema[182] makes a remedy for fever. (385) Through removing the *vitiated* humours by the excretory passage and *thus* restoring the balance of the elements [186], the patient gets rid of his pains, feels himself easy, and becomes thoroughly free from fever.

(XV) An Oil for an Enema,[192] in 4 ślôka.

(386—389.) Take long pepper, liquorice, bêl, dill, Madana (*Randia dumetorum*), Vachâ (*Acorus Calamus*), Kushṭha (*Saussurea Lappa*), zedoary, root of Pushkara[73], plumbago-root, and deodar, (387) and having made them into pastes, boil them in oil with twice as much of milk. This makes a most excellent oily enema[142] for piles and flatulency. (388) It cures prolapsus ani, colic, strangury, and dysentery, infirmity in the hips, thighs or back, costiveness, and pains in the groin, (389) slimy discharges, inflammation of the rectum, obstruction of wind and fæces, and frequent evacuation. It is an oily enema which overcomes *all these diseases*.

(XVI) An Oil for the cure of Nervous Diseases,[193] in 3 ślôka.

(390—392.) Take five prastha[8] of the juice of radishes and four of curds, also three kuḍava[9] of śukta[87] and three of oil, (391) also four pala[8] of rock-salt and eight of fresh ginger; but if fresh is not available, let it be sixteen pala of dry ginger. (392) This *preparation* relieves sciatica, paraplegia, and attacks of severe gout,[194] also all diseases of the hips, and nervous diseases due to hard drinking.

[180] That is, it should be administered (as the Charaka recension states, see note 189) in the form of a *pratimarśa*. On this see Mat. Med., p. 17, and Śâ., III, 8 [37] (v. 36). It is done by dropping two drops of the medicated oil, at a time, into the nose to be snuffed up. Each drop is to be let fall into the nose with two fingers (as in the case of an *dashpalana*, see Part I, note 66). According to AH., I, 20 [18] (vv. 9b-10a); V., LXXXI [169] and Śâ., III, 8 [37] (v. 37), the drops are formed by dipping the forefinger, two joints deep, into the oil, and allowing the adherent oil to drop from it.

[181] This formula is found, in an identical recension, in Ch., VI, 2 [18] (vv. 245, 246) and in another, only slightly differing, in AH., IV, 1 [20] (vv. 121b-123a).

[182] This formula is found in the identical recension in Ch., VI, 2 [18] (vv. 131-135), and in another, also practically identical recension, in SK., V, 64-67 [37], V., IV [30] (vv. 102-105), AH., IV, 8 [21] (vv. 80b-83a), and Ch., V., 39 [28].

[186] I have not been able to trace this formula elsewhere. Compare, however, the formula in V., XXII [32] (vv. 391-393) and Ch., XXII, 89 [20].—*Vâta-hara* is an abbreviation of *vâta-nâśâka-kara*. See *ante*, note 14.

[194] *Khalliveda*, in the simpler form *khalli* or *khalel*, is mentioned in MN., XXII, 44 [33] as a kind of *vâta-nâśâka*, whence it is quoted by Dṛiḍhabala in Ch., VI, 28 [178] (v. 55). It is described as excruciating pains (*arumâsana*) in the feet, legs, thighs, and wrists. It also occurs in SK., VI, 61 [18], where it is mentioned as a symptom of *vishâkhâ*, or cholera, and explained in Śrîkaṇṭhadatta's commentary as 'crushing pains in the hands and elsewhere.' In AS., III, 15 [36] (quoted in AH., III, 15, v. 55a) *khalli* is said to be a severe form (*ûrdhva-vâj-daṇḍâ*) of the two diseases *gridhrasî* and *vâtakhâ*, though this definition is said by Gayâdâsa (as stated by Vijaya Rakshita in his comment on the passage of the Nidâna, above referred to) to be really due to Hârita. Suśruta in II, 1 [20] (v. 73, 74) does not employ the term *khalli* at all, but he names the two diseases *gridhrasî* and *vâtakhâ*, and describes them as gout in the lower and upper limbs respectively. See also *ante*, note 181.

(XVII) An Oil for an Errhine for Hair and Head Diseases,[101] in 3 ślôka.

(393—395.) Take the following ten ingredients: liquorice, Prapauṇḍarika[101], Vṛihatî (*Solanum indicum*), rock-salt, and seeds of Aḍhakî (*Cajanus indicus*), also half-ripe bêl, Harêṇu (*Piper aurantiacum*), the two Haridrâ[65], and long pepper. (394) Make pastes of one aksha[9] each of these,

Thirteenth Leaf: Obverse.

and boil *the whole* slowly in half a prastha[9] of oil and four times as much of milk, and, after clarifying it, administer it perseveringly in the form of an errhine. (395) By this preparation wrinkles and grey hair, ... , brown spots on the face, ... , and all (diseases of the head) are cured. So the medical authorities declare.

(XVIII) An Oil to remove Wrinkles and Grey Hair.[19]

(396—398.) Take one prastha[9] each of the juice of emblic myrobalan, oleander, Bhṛingaraja (*Eclipta alba*), and (sweet) oil, (397) and boil these four prastha in a new vessel of iron. Then let it stand for a month in a box made of piasâl-wood (*Terminalia tomentosa*). (398) This oil removes wrinkles and premature grey hair, and may even change the white colour of cows, dogs, asses, camels, and white-feathered birds.[102]

(XIX) A Formula for curing Adenia.[103]

(399—401*a*.) Take equal parts of Phaṇijjhaka (*Origanum Marjorana*), Kshavaka (*Achyranthes aspera*), Nâdéya (*Sesbania ægyptiaca*), Navamâlikâ (*Jasminum Sambac*), sonchal-salt, Vachâ (*Acorus Calamus*), and asafœtida. (400) *That is, of these drugs* take one aksha[8] each, and boil them in one prastha[9] of oil over a gentle fire, together with an equal part (*i.e.*, one prastha) of the urine of a faultless female animal[107] and four parts (*i.e.*, four prastha) of goat's milk. (401*a*) Then administer *the preparation* in the form of an errhine to cure adenia.

(XX) *Another* excellent Formula for Adenia.[108]

(401*b*—403*a*.) Take a dead black snake, and place it in a new (earthen) vessel, (402) and having *covered its mouth* with a plaster (of clay), roast it, thus enclosed, over a very strong fire. When done, mix it up with oil, and place it as a plaster over his (*i.e.*, the patient's) enlarged glands. (403*a*) An application of *this remedy* for no more than seven days will effect a cure of the adenia.

[101] The effect on the white colour of animals is only added *in majorem gloriam* of the oil.

[102] I have not been able to trace this formula elsewhere. Compare, however, the formula in Ch., VI, 26[198] (vv. 137, 139), given in the section on head-diseases.

[107] *Saṇyâkâ* must here refer to the cow, according to the rule given in Part I, verse 59. The word *saṇyaka* is, in Pâṇini, 5, 2, 68, said to mean 'endowed with good qualities,' as *saṇyakô manâk* 'a faultless gem,' *saṇyakî gauṇâ* 'a faultless cow'; see the Petersburg Dictionary.

[103] With this formula may be compared one in AH., VI, 30[203] (vv. 28b, 29a), which recommends, among other things, an ointment made with the burnt (*dagdhâ*) body of a black snake which has died naturally (*svayaṁ-mṛita*) and the oil of *Iṅgudî* (Balanites indica). The 'black snake' is a variety of the *Naja tripudians* or Cobra. Of this species there exist several varieties in India, the prevailing colour of which is black or blackish, with certain white marks. See Dr. Günther's Reptiles of British India, p. 329.

THE FOURTH CHAPTER: MISCELLANEOUS FORMULAE.

In this chapter we shall describe miscellaneous formulae.

Two Formulae for the Cure of Leprosy,[199]

in 2 ślôka.

(I)

(Verse 404.) Having poured out[200] roasted sesame-seed from the roasting pan into milk *to cool it*, make it thoroughly into a paste. This, when mixed with liquorice, will form a poultice[201] *which may be used as a remedy* against leprosy.

(II)

(405.) *Similarly* an excellent plaster[199] may be made of wheat with goat's milk and clarified butter. This may be considered the principal remedy for the cure of leprosy.

Four Formulae for the Cure of Fetid Diarrhœa,[202]

in 7 ślôka.

(I)

(406.) Clarified butter, oil, treacle, śukta[27], and ginger;—a potion, made of these five ingredients, will give immediate relief from severe pains in the sacrum.

(II)

(407 and 408.) Root of plumbago and of long pepper, Vachâ (*Acorus Calamus*), Kaṭukarôhiṇî (*Picrorrhiza Kurroa*), Pâṭhâ (*Stephania hernandifolia*), seeds of Vatsaka (*Holarrhena antidysenterica*), chebulic myrobalan, and ginger;—(408) *a preparation of* these quickly stops acute diarrhœa attended with fetid discharges[203] and severe pain, also stools charged with phlegm or bile.

[199] These two formulae are quoted in my preliminary paper on the Bower MS., in the Proceedings of the Asiatic Society of Bengal, for 1891, p. 58.—Substantially the same two formulae are found in V., XXIII[168] (v. 35), Chd., XXIII, 11, 12[203], and BhP., II, 2[206], with the following two differences, however: (1) liquorice is omitted from the first formula, (2) both formulae are for plasters (*pralêpa*). With the formulae, as given in these three works, Ch., VI, 29[178] (v. 137) and AH., IV, 22[122] (v. 33) agree, with the following difference that they substitute the root of *Sahachara* (Barleria cristata) and *Jîvanti* (Demtrebium multicule) for *Gôdhûma* or 'wheat'. Ch., VI, 29[202] (v. 131), and V., XXIII[168] (*v.* 63), however, give a formula for making a poultice (*pradêha*) which, in addition to sesame, liquorice, and milk, requires three or four other ingredients. Moreover, Chd., XXIII, 11[204] quotes in its commentary a formula from Charaka for making a poultice which otherwise agrees with our second formula. It runs thus: *vêtê sa-ṛukê sa-ghṛitaḥ pradêha ; gôdhûma-chûrṇaṁ chhâgalî-payaś-cha* ‖ i.e., 'a poultice may be made with clarified butter, powdered wheat, and goat's milk.' I have not been able, however, to trace this formula in any copy of Charaka accessible to me.

[200] Arunadatta, in his commentary to AH., I, 20 (v. 17), explains *nirvâpya* by *tîti-kṛityu*, having cooled (see also Ibidem, IV, 6 (v. 60), and *nirvâpya pishṭaṁ* by *tîti-kṛitya śukôra-nishpeshaṇêna dṛishadi pishṭaṁ*, i.e., having cooled and made it into paste with lye in a mortar. Ibidem, II, 1 (v. 39) *nirvâpya kshîrê* is explained by *nivêśya kshîrê*, having dipped into milk. This is said of a doll made of gold or silver or iron, which is to be made red-hot, and then to be dipped in milk; of that milk a handful may be drunk as a charm.

[201] On plasters (*pralêpa*) and poultices (*pradêha*) see Mat. Med., p. 19; also S., I, 18[19] and Śâ., III, 11[208] (vv. 63, 64).

[202] The first three formulae are in the original text marked off by the numbers 1, 2, 3. The first of them, as I learn from Dr. Cordier, occurs in KS., XI, v. 58. The second formula is found almost identically in S., VI, 40[780] (vv. 35a, 35b) and V., II[85] (vv. 32, 33), but the latter reads *sa-vêtasa* for *pariśêsa*. AH., IV, 9[153] (vv. 104b, 105a) has it in another recension; and SU., III, 34[19] and Chd., III, 23[36] gives only the latter portion of the formula, beginning with *jâjâkâ*. The third and fourth formulae are mere varieties of one another, the fourth substituting *saindhava* for *tryûshaṇa*, the other five ingredients being the same in both. Both formulae, as the corresponding recensions, quoted below, show, consist of six ingredients. In the third formula, as given in our Manuscript, there is probably a clerical error, and *Vâcâ* should be read for the second *tatâ*. Compare the similar recensions, all of which include *Vacâ*, in S., VI, 40[781] (v. 35a), V., II[85] (v. 37), Chd., III, 20[35], AH., IV, 9[67] (vv. 105b, 106a), BhP., II, 1[162], HS., III, 3[186]. An early identical recension of the fourth formula occurs in V., II[85] (v. 29) and BhP., II, 1[198]. S., VI, 40[781] (v. 46) has another recension of it which omits *saindhava*.

[203] *Âma-sanmûrchhaṇa-atîsâra*, is the same as the simpler *âma-atîsâra*, lit., unripe, or undigested, diarrhœa. *Âma* is a morbid state of the bowels, when they do not digest properly, but excrete solid and fetid matter.

(III)

(409 and 410.) Chebulic myrobalan, the three acrids[203], asafœtida, sonchal-salt, also Vachâ (*Acorus Calamus*) and Ativishâ (*Aconitum heterophyllum*);—a preparation made of these may be drunk with warm water. (410) It will stop acute diarrhœa attended with fetid discharges[204] and severe pain, just as the shore *stops* the raging sea.

(IV)

(411 and 412.) Chebulic myrobalan, Prativishâ (*Aconitum heterophyllum*), asafœtida, sonchal-salt, Vachâ (*Acorus Calamus*), rock-salt;—

Thirteenth Leaf: Reverse.

a paste made of these may be drunk with warm water. (412) This preparation against fetid diarrhœa is much approved by physicians, but a doctor who cares for his profit and credit should use it with discretion.

(Four Formulae for Astringents against Diarrhœa.[205])

(I)

(413 and 414*a*.) Kernels of the jâman and mango[206], Ródhra (*Symplocos racemosa*), rind of pomegranate, rasot, Anantâ (*Hemidesmus indicus*), small cardamoms, and filaments of the lotus;—(414*a*) these mixed with one part of honey are said to make an excellent astringent,

(II)

(414*b*—416*a*.) Rasot, galena, talc, Śailêya (*Parmelia perlata*)[207], Musta (*Cyperus rotundus*), Katphala (*Myrica sapida*), (415) kernels of the jâman and mango[208], also bêl, Yâśa (*Alhagi maurorum*), Vatsaka (*Holarrhena antidysenterica*), Śalmala (*Bombax malabaricum*), Dhátakí (*Woodfordia floribunda*), Lódhra (*Symplocos racemosa*), Phalí (*Aglaia Roxburghiana*), Mêchika (*Moringa pterygosperma*), and red ochre;—(416*a*) a potion *prepared from these* with rice, treacle and honey makes an excellent astringent.

(III and IV)

(416*b* and 417.) A potion may be prepared either from cucumber-seed with rasot, (417) or from rind of pomegranate and bark of Vatsaka (*Holarrhena antidysenterica*) with butter-milk. These two formulae are considered to make excellent astringents in cases of diarrhœa.

[203] None of these four formulas can be traced in any other medical work. There are, however, many corresponding formulae, made up, in varying combinations of the same ingredients, such as Ch., VI, 10[242] (vv. 57-61, six formulae), S., VI, 40[198] (vv. 60-62, six formulae, vv. 66-68, four formulae, vv. 69-70, 80), AH., IV, 2[83] (vv. 56*a*-63), V., II[18] (vv. 52, 58, 66, 86, 92-94, 105, 174, 175). Ch., III, 29, 31, 39, 41[92], BhP., II, 1[29] (vv. 1-4, four formulae, also p. 128, l. 15, 16). It may be noted, that most of the formulae, here quoted, also differ from one another.

[204] By *asthi* or 'stone' of the mango is intended the kernel of the stone, or *antri-madhya*, as the corresponding formula in S., VI, 40[198] (v. 67) shows. It is also called *majjan*, marrow, see note 204.—Jâman is the *Eugenia Jambolana*.

[205] The reading of the text *anâhâ śailêyâś* is puzzling and probably corrupt. I read *ahâryâś śailêyaś*, as suggested by Kavirâj Binod Bihari Gupta Kavibhûshaṇa, these two drugs being used in the case of bowel complaints. The emendation, however, is not altogether satisfactory.

A Formula of the Aśvins to cure Hæmorrhage,[207]
(including which there are) 13 ślôka.[208]

(418 and 425.) Loudly proclaiming, the excellent Aśvins, the best of physicians, for the benefit of those suffering from hæmorrhage, hæmorrhoids, and fever, (419) taught to Vâsava (*i.e.*, Indra) the *following* formula *which had been* declared by Brahma of old:—Sandal, Nalada (*Nardostachys Jatamansi*), Rôdhra (*Symplocos racemosa*), Uśîra (*Andropogon muricatus*), filaments of the lotus, (420) Nâgapushpa (*Messua ferrea*), bêl, Bhadramustâ (*Cyperus rotundus*), and sugar; also Hirivêra (*Pavonia odorata*), Pâṭhâ (*Stephania hernandifolia*), fruit and bark of Kuṭaja (*Holarrhena antidysenterica*), (421) ginger, Ativishâ (*Aconitum heterophyllum*), Dhâtakî (*Woodfordia floribunda*), and rasot; also kernel of the mango and the jâman[209], and gum of Môcha (*Bombax malabaricum*), (422) blue lotus, Samangâ (*Mimosa pudica*), small cardamoms, and rind of pomegranate. Of these twenty-four ingredients take equal parts, (423) and make them up into a potion with rice-water and honey. As such it is beneficial to people suffering from hæmorrhage, hæmorrhoids, and fever, (424) it may also be given to people subject to fits of swooning and syncope[62], and troubled with morbid thirst; *it also cures* diarrhœa, vomiting, and suppression of the menses in women. (425) This formula, devised by the Aśvins, is a remedy against hæmorrhagia; it is also said to be an excellent means of arresting *threatening* miscarriages.

(Four Formulae for the Cure of Dysentery.[210])

(I)

(426 and 427.) Take curds, clarified butter, oil, ginger, and molasses, also honey and powder of (dried) jujube; and having stirred the whole together, give it *to the patient* to drink. (427) This preparation effectively restrains acute diarrhœa, just as the wind does the current of a river as if it were obstructed by a weir of creepers.

(II)

(428.) Or prepare a paste of jujube leaves, chebulic myrobalan, and Rôdhra (*Symplocos racemosa*), with the juice of wood-apples and honey, and take it as a draught with curds.

(III)

(429.) *A patient* overcome with the pains of dysentery should drink . . . . boiled with the root of Âḍhakî (*Cajanus indicus*), after having strained it and boiled it again in smoked clarified butter[209]. This *preparation* relieves the most intense pain.

[207] I cannot trace this formula in any medical work, except V., VIII [97] (vv. 32-36*a*). There it is given in nearly identical terms, with only a few slight verbal alterations.

[208] The text reads "12 ślôka, which must be a clerical error for 13; for the count is from v. 413 to v. 425. The Aśvins formula, by itself, has only 8 ślôka.

[209] I have been able to trace only the first and second of these four formulae in other medical works. The first occurs in a different recension, substituting *sitâ* or 'sugar' for *karkandhu-chûrṇa*, in V., II [97] (v. 282). In a third recension, in which it is broken up into two distinct formulae, it is found in AH., IV, 9 [97] (v. 18). The second formula occurs in two different recensions in V., II [97] (v. 287, also v. 103) and AH., IV, 9 [97] (vv. 36*b* and 37*a*). In both of these *Dhâtakî* (Woodfordia floribunda) is substituted for *Abhayâ* or 'chebulic myrobalan.'—On "smoked clarified butter" (v. 429), see *infra*, v. 868.

(IV)

(430*a*.) In the case of dysentery the patient should take a paste of cucumber-seed made up into a draught with rice and coriander.

Fourteenth Leaf: Obverse.[210]

(Twenty Formulae for the Cure of Cough and Diseases of the Bile or Phlegm, or to Emaciation and Ulceration.)

(I)

(431.) [211]In the case of cough due to ulceration, sweet, cold, and greasy substances, such as promote the growth of the bulk of the body, are beneficial *for use* as food and drink. Also treatments such as are recommended for the relief of *disorders of* the bile should be adopted.

(II)

(432 and 433.) [212](*a*) Liquorice, long pepper, raisins, lac, Śṛṅgī (*Rhus succedanea*), Śatāvarī (*Asparagus racemosus*), and of Bamboo-manna four times and of sugar twice as much as all *the other ingredients put together*:—(433) with these, together with honey and clarified butter, a linctus may be prepared for the cure of cough due to ulceration. (*b*) Or a potion may be made of equal quantities of sugar and lac *mixed* with milk.

(III)

(434) [213]A cough which is due to emaciation, should, according to the humour which is disordered, be relieved by a diet of flesh, milk and clarified butter, and generally by such food as promotes the growth of the bulk of the body; but an attenuating diet should be avoided.

(IV)

(435.) [214]Long pepper, Padmaka (*Prunus Puddum*), raisins, and well-ripened fruit of Vṛihatī (*Solanum indicum*), mixed with clarified butter and honey, make a linctus for the cure of cough due to emaciation.

(V)

(436—440.) [214] Boil two palas each of the set of ten roots [215], cowhage, cardamoms,

[210]The number of this leaf is missing. Its exact place is uncertain. At first ¶ had placed it as the twenty-first, as belonging to the sixth chapter on Rasāyana. The number 21 appearing in the plate on the right-hand margin of the reverse, is inscribed by myself. The true place of the leaf, however, is most probably where it now stands, in chapter IV, on miscellaneous formulae, as the fourteenth leaf, though there is some difficulty in adjusting the junctions of the thirteenth, fourteenth and fifteenth leaves. For this leaf as well as the fifteenth leaf contain formulae for the same complaints, cough and hiccough.

[211] There is no formula, exactly like this, elsewhere. The following passages, however, may be compared, in Ch., VI. 21 [283] (v. 78), 22 [286] (v. 17) and AH., IV. 3 (v. 150) [288], (v. 177) [289], IV. 4 (v. 20*a*)[290] which contain some verbal agreements.

[212] The first part of this formula is found, in a practically identical recension, in SY., XI. 20. 21[158], V., XI [287] (vv. 77*a*, 78) and Chd., XI, 19[216], with the exception that the proportions of bamboo-manna and sugar are reversed, being twice and four times respectively.

[213] This formula occurs, in the identical recension, in SY., XI, 22 [158], V., XI [285] (v. 92, see also v. 79), and Chd., XI, 20 [214] except that Chakradatta reads *śvāsa-kāsa*, i.e., 'asthma and cough' for *kṣaya-kāsa*. In a slightly different recension it is found in Ch., VI, 22 [286] (v. 86*b*). Compare also *infra*, formula VIII. in vv. 482, 483.

[214] This formula is found, in another recension, in Ch., VI, 22[286], Chd., XI, 37[219], AH., IV. 3[289](vv. 125*a*-131*a*), and Śā., II, 8 [166] (vv. 30-35). This second recension is also given in V., XI [278](vv. 174-180), but with two additional lines, the first of which adds, as a further ingredient, one pala each of the *chaturjāta* or 'set of four spices' (see Part I, note 28). The other explains the name *Agastya-haritakī*, by which the formula is there called, to have been given to it, because it was composed by the great sage Agastya, and because it contains one hundred Harītakī or 'chebulic myrobalans.' In

root of long pepper, plumbago-root, Gajapippalî (*Scindapsus officinalis*), Apâmârga (*Achyranthes aspera*), Śaṅkhapushpî (*Canscora decussata*), zedoary-root, Balâ (*Sida cordifolia*), (437) and root of Pushkara[12], together with one âḍhaka[3] of barley, in one drôṇa of water. When the decoction is thoroughly permeated with the barley, it should be boiled once more together with one hundred *pala*[s] *of* chebulic myrobalans (438) and one tulâ[5] of molasses, after adding to it one kuḍava[5] each of clarified butter, oil, and long pepper When it has become cold and *of the consistency of* a linctus, (439) add a kuḍava of honey, and then place it in a vessel *used* for clarified butter.[252] It may be taken according to one's requirement, as a linctus, and two chebulic myrobalans should be eaten with it. (440) This *preparation* cures every kind of cough, but especially *cough* due to emaciation. In patients suffering of asthma and hiccough, by being well rubbed with it, perspiration should be induced.

(VI)

(441—444*a*.)[253] (*a*) Kulattha (*Dolichos biflorus*), sesame, Mâsha (*Phaseolus Roxburghii*), vinegar, clarified butter, oil, meat, and boiled rice; or broth of the flesh of the peafowl, partridge, and ordinary fowl together with the three acrids[29] and pomegranate, or (442) asafœtida, vida-salt[23], raisins, juice of citrons, and fresh ginger; or Kulattha (*Dolichos biflorus*), pomegranate, cumin, and dry radishes:— (443) *any of these* may be eaten with greased and hot dishes of barley, wheat, and rice; (*b*) and infusions of Kulattha (*Dolichos biflorus*), barley, and jujube, with those of the ten roots[105] and Balâ (*Sida cordifolia*), (444*a*) may be used as drinks, for the purpose of curing cough, asthma, and hiccough.

(VII)

(444*b*—446*a*.)[254] Zedoary, Pushkara[12], Jîvantî (*Dendrobium multicaule*), Musta (*Cyperus rotundus*), dry ginger, *Chôraka (*Trigonella corniculata*), (445) long pepper, Tâmalakî (*Phyllanthus urinaria*), Surasa (*Ocimum sanctum*), cardamoms, aloes, cinnamon-bark, and Bâlaka (*Pavonia odorata*):—taking equal parts *of all these drugs*, and adding eight times as much of sugar, (446*a*) a linctus may be made with honey and clarified butter, as a remedy for hiccough and asthma.

(VIII)

(446*b* and 447*a*.)[255] Dates, long pepper, raisins, and sugar,—equal parts of these, (447*a*) together with honey and clarified butter, make a linctus for the cure of asthma and hiccough.

Chakradatta and Śârṅgadhara the formula is also quoted under that name, though without the explanation. The main difference between the recensions as given in our Manuscript and in those medical works is that the latter substitute Bhârgî (*Clerodendron Siphonanthus*) for Êlâ or 'cardamoms,' and that they name a much larger number of diseases for which the preparation is a remedy, including among them *vali* 'wrinkles' and *palita* 'grey hair.'

[252] With this formula may be compared the following passages: Ch. VI. 21[201] (vv. 81, 84, 90, 96-98); S., VI. 51 (v. 44)[318], V., XII [197](vv. 33, 41, 42); AH., IV, 3[209] (v. 19); iIV, 4[209] (vv. 20, 25, 27).

[253] For another recension of this formula, and its parallels, see *ante*, vv 27, 28.

[254] The eighth and eleventh formulæ are practically two different recensions of the same formula. The eleventh formula is found, identically the same, in SY., X 1.7 [194], Ch1., X1, 8 [22], while the 8th formula occurs, in a slightly different recension, in Ch., VI, 22 [200] (v. 87*a*) where *Svadamshtrâ* (Tribulus terrestris) is substituted for *Sarkarâ* or 'sugar.'

Fourteenth Leaf: Reverse.

(IX)

(447*b*—449.) [216](*a*) Dishes prepared of . . . . . rice and wheat, (448) together with cold broth of game, raisins, and sugar, or with cold boiled-milk, clarified butter, and sugar (may be taken as food); (449) (*b*) and cold grape-juice, sugar and infusions of emblic myrobalans, raisins, root of Pushkara[12], deodâr and sugarcane may be taken as drinks according to one's inclination.

(X)

(450.) [217]Raisins, emblic myrobalans, dates, long pepper and black-pepper may be made up with honey and clarified butter into a linctus as a remedy for cough due to *deranged* bile.

(XI)

(451.) [218]Dates, long pepper, raisins, sugar, and powdered fried paddy, in equal parts will make, together with honey and clarified butter, another remedy for cough due to *deranged* bile.

(XII)

(452.) [219]Clarified butter, with both a decoction and paste of Vâsâ (*Adhatoda Vasica*), and with honey and sugar, makes an approved remedy for cough due to *deranged* bile, as well as for all diseases due to *the disorder of* bile.

(XIII)

(453.) [220]Crushing calyxes of the trees with a milky sap[102], boil them as well as a paste of raisins and clarified butter, in four times their quantity of milk. This makes an approved linctus for the cure of cough due to *disordered* bile.

(XIV) The SAMASAKTUKA Clarified Butter.[221]

(454—459.) In sixteen pâtra[5] of water place sixteen pala[5] of raisins, eight pala of honey, and half a tulâ[5] of goat's flesh. (455) Boil this till the water is reduced to one-fourth *of its original quantity;* then remove the decoction, strain it, and add to it an equal quantity of milk and one prastha[5] of fresh clarified butter. (456) Now add one aksha[5] each of the following drugs: Rishabhaka[71], Jîvaka[71], Mêdâ[71], Vidârî (*Ipomoea digitata*), sugar-cane, cowhage, Ilhavya (*Piper Chaba*),[222], walnuts, Nikôchaka (*Alangium decapetalum*), Śṛiṅgâṭaka (*Trapa bispinosa*), and lotus-seeds, (457) boil *the whole* over a

[216] This formula is given, in identically the same recension, in SY., XI. 6 [144], V., XI [30] (v. 34) and Chd., XI. 7 [12].

[217] This formula occurs, in a somewhat different recension, in Chd., XI. 18 [28]. There exist, however, numerous similar formulæ. Thus one is given *ante*, verses 153, 154 and references to parallel recensions will be found in note 98. Others are in AH., IV. 2 [37] (vv. 24, 25), Chd., IX. 8, 12, 13 [27], V., VIII [37] (vv. 29*b*, 40, 44).

[218] This formula is found, under the name *Kshîra-ghṛita* or 'medicated milk and clarified butter,' in the identical recension, in V., XI [36] (v. 38).

[219] This formula is already given in a different and much shorter recension, in the second chapter, under the name of the 'Mâdhvîkâ Clarified Butter' (*ante*, vv. 162-165*a*), where, in note 104, some parallel recensions will be found noticed. The longer recension, here given, shows similarities with portions of other formulæ, *e.g.*, the Amṛitaprâśa (see *ante*, vv. 108-119) as given in AH., IV, 3 [33] (v. 26).

[220] *Rîkapâ* is the same as *Chavyâ* or 'Piper Chaba' according to the Mâdânî Kośa. In Pet. Dict. it is said to be a false spelling, though it is not apparent on what ground.

[221] This formula is already given in the second chapter, under the name of the 'Mâdhvîkâ Clarified Butter' (*ante*, vv. 162-165*a*), where, in note 104, some parallel recensions will be found noticed. The longer recension, here given, shows similarities with portions of other formulæ, *e.g.*, the Amṛitaprâśa (see *ante*, vv. 108-119) as given in AH., IV, 3 [33] (v. 26).

gentle fire, and when it is thoroughly boiled, add eight pala of refined sugar,[223] (458) eight pala of honey, four pala of powdered long pepper, and a quantity of powdered parched grain equal to the whole. This clarified butter, highly esteemed by Janakéśvara (*i.e.*, the Creator), is called the Samasaktu (or 'containing an equal quantity of powdered parched grain'). (459) In the case of emaciation, ulceration, paucity of semen, hæmorrhagic disorders, and craving for women it may be given; it acts as an aphrodisiac and promotes bodily strength.

(XV)

(460—462.) [224]Boil one pala[2] each of raisins, liquorice, dates, Vidárí (*Ipomœa digitata*), Śatávarí (*Asparagus racemosus*), Parúshaka (*Grewia asiatica*), and the three myrobalans[14], (461) in one aḍhaka[2] of water, till *the whole* is reduced to one quarter *of its original quantity*. Then boil in it once more the juice of emblic myrobalans, clarified butter, juice of sugar-cane, milk, and of paste of chebulic myrobalans one quarter as much as each of the *others*. (462) This clarified butter, when ready boiled, should be mixed with one quarter its quantity of sugar and honey, and may then be administered as a remedy for cough due to *disordered* bile, and in fact for any disease due to *disorder of* the bile.

(XVI)

(463—464.) [225]In the case of cough due to phlegm the first thing to do is to take an emetic and to fast; afterwards soups of barley porridge, *mixed with* acrid and bitter things, are appropriate. (464) As drinks, warm water or wine may be taken, mixed with old honey.[226] Athletics and inhalations also may be practised, and dry and hot things may be eaten.

(XVII)

(465.) [227]In the case of cough caused by phlegm the physician may give mustard oil or safflower-oil to drink; or *the patient* may drink Pañchakóla-oil[91].

(XVIII)

(466.) [228]The three acrids[23], Pushkara[12], raisins, the three myrobalans[14], zedoary-root, and plumbago-root, mixed with honey and oil, make a linctus for the cure of cough due to *deranged* phlegm.

[223] *Śilá-śarkará*, in Med. Dict., is said to be *chini*, on which see Dr. Grierson's Bihar Peasant Life, para. 1014, p. 226. Raw brown sugar, from pressed inspissated sugar-cane juice (*guḍa* is called *sakkar* (*śarkará*); when refined it is called *chini*, and in this condition it is comparatively white (*sita*); when candied, it is called *misrí*.

[224] This formula is found, in the identical recension, in Ch., VI, 5[408] (vv. 190-192), V., XXX[479] (vv. 52-54), SŢ., XXX, 50-52[375], Chd., XXX, 34[376], under the name of *Dvidáshádi-ghṛita*, in the chapter on *gulma* or 'abdominal tumours,' and accordingly these works read *pitta-gulma-ghṛitam* instead of *pitta-kásaghṛitam*. In AH., IV, 13[301] (vv. 16, 17) it is given in another recension, in the chapter on *Vidradhi* or 'internal abscesses.' See also S., VI, 42[401] (v. 106*b*, 107*a*).

[225] The first portion of this formula is found, identically the same, in V., XI[166] (v. 39). The latter portion I have not been able to identify elsewhere.

[226] *Purápam* might seem to qualify *madyam*, wine, but old wine is no particular feature in Indian Medicine, while old honey is; see Mat. Med., p. 277; old honey is preferred to new, and is said to be astringent and demulcent. One would expect the compound *purána-kshaudra-sarkyutam*, but such loose constructions are not uncommon.

[227] I have not been able to trace this formula elsewhere. The Pañchakóla, however, is prescribed in Chd., XI, 11[376]. The 'Pañchakóla clarified butter' will be found in the second chapter, under the name of *Shatpala*, in vv. 150, 151.

[228] This formula I have found, in the identical recension, only in V., XI[167] (v. 47).

(XIX)

(467 and 468*a*.) [239]Take powders of the three acrids[75], the three myrobalans[76], deodar, baberang, Padmaka (*Prunus Puddum*), Balâ (*Sida cordifolia*), and *Râsnâ (*Vanda Roxburghii*), and add sugar equal to all of these, and honey as well as clarified butter. (468*a*) This may be taken as a linctus to cure cough due to *disordered* phlegm.

(XX)

(468*b*.) The three acrids[75] and the three myrobalans[76] . . . . . .

Fifteenth Leaf: Obverse.

Five Formulae for the Cure of Hiccough,[230]

in 5 ślôka.[231]

(I)

(469.) Root of Kâśa (*Saccharum spontaneum*) done up with honey, long pepper and ginger, makes a linctus which most effectively relieves hiccough.

(II)

(470.) The patient may inhale the fumes of the horn and hair of kine, or the fumes of choice resin of the sal-tree, or fumes of Kuśa-grass (*Poa Cynosuroides*), *in pastils*[232], well smeared with clarified butter. *By this* he will obtain relief from hiccough.

(III)

(471.) Powder made of Tiktakarôhiṇî (*Picrorrhiza Kurroa*), or powders of gold and red ochre, made up *into a paste* with honey, very quickly cures even a most persistent case of hiccough.

(IV)

(472.) Fried paddy, kernels of the stones of jujube, and best riparian sulphide of antimony[233]:—all these, well made up with honey into a paste, make a linctus which most effectively relieves hiccough.

[230] This formula occurs again, in another recension, in verses 476 and 477, where references to parallel recensions will be found.

[231] Of these five formulae I have not been able to trace the fifth in any other medical work. But the four others occur in Vangasêna, and the second is also found in Charaka. The first formula is found in V., XII [265] (v. 23) in another recension which runs as follow: *sadya ḍaa mahâgôṇaḥ kêśa-nâla-ḥkaṇaṣh rajaḥ śikk-ḍrêśśi madhuplutâḥ*. The second *sd lôṇyḍek-ḥkaṇṭhî-ḍâḍêri-kaṇ-ḍaśîtam*. The second formula occurs in another recension in V., XII [265] (v. 27) which substitutes *naipâḍyâ* and *kuśâḥa* for *gô-rôha* and *śrêśi(ka* respectively. In a third and altogether different recension it is found in Ch., VI. 21 [266] (vv. 76-78). The third and fourth formulae are found in V., XII [265] (v. 25*a*), contracted into one, which runs as follows: *kêśa-maṇji-ḍâṇaṣh lôṇâ tiktâ kâñchana-gairikaṣh*.

[232] The text reads "15 ślôka," which is probably a mere clerical error.

[233] For the method of inhaling fumes (*or dhûma-pâna*) see Mat. Med., p. 20. "Pastilles for inhalation are thus prepared: a reed, half a cubit in length, is smeared or laid over with a paste of the drugs to be used, to two thirds of its extent and is dried in the shade. When dry the reed is withdrawn from the paste, leaving it in the form of a hollow tube. This is smeared with clarified butter and lighted. The lighted extremity is introduced into one end of the inhaling tube, and the fumes drawn in by the other end through the mouth or nose, as the case may be, and emitted again through the mouth."

[234] 'Riparian sulphide of antimony' or *srôtaja añjana* is one of the five kinds of *añjana* or 'substances used for collyriums.' The word literally means 'produced from a river,' especially from the Yamunâ (or Jam'nâ). See Professor Garbe's Indische Mineralien, p. 54, and Mat. Med., p. 74.

(V)

(473.) One pala[a] of finely pulverised rock-salt, *made up with* two pala of clarified butter, may be given to a patient for the relief of his hiccough as well as in the case of effusion of blood from the mouth.

Eight Formulae for the Cure of Cough,[234]

in 10 ślôka.

(I)

(474.) [235] Long pepper, emblic myrobalan, raisins, bamboo-manna, sugar, fried paddy, clarified butter, and honey together make a linctus that cures cough.

(II and III)

(475.) [236] Long pepper, sugar, and raisins, mixed with honey, make a linctus *for cough:* (III) so do powders of chebulic myrobalan and long pepper, mixed with honey.

(IV)

(476 and 477.) [237] Prepare fine powder of the three acrids[22], the three myrobalans[15], Padmaka (*Prunus Puddum*), deodar, * Râsnâ (*Vanda Roxburghii*), Balâ (*Sida cordifolia*), and baberang, (477) add sugar equal in quantity to the total powder, and make up *the whole* into a linctus with honey and clarified butter. This linctus will cure the five *kinds of* cough, when occurring in complication.

(V)

(478 and 479.) [238] Prepare powders of equal parts of carbonate of potash, baberang, asafœtida, Bhârgî (*Clerodendron Siphonanthus*), ginger, rock-salt, long pepper, and * Râsnâ (*Vanda Roxburghii*), (479) and take them as a draught with clarified butter. This *compound* powder is a remedy against cough; it also cures dyspepsia, swooning, asthma,[239] and hiccough.

[234] Several of these formulae are mere variants of one another; *viz.*, Nos. I and VIIIa, Nos. II and VI, Nos. IV, and VIIIc. Most of them are found in other medical works, see the subsequent notes; but Nos. II, III, VI, and VII. I have not been able to trace elsewhere.

[235] This formula is merely a variant of No. VIIIa. It occurs in practically the same form in Ch. (G), VI, 18 [435] (v. 93); but in Ch. (J), VI, 22 [76] (v. 92) it is given, in a rather different form, not as a linctus, but as a potion. According to Dr. Cordier it is also found in KS., XI, v. 38.

[236] The second and sixth formulae appear to be merely two different recensions of the same formula. This as well as the third formula I have not been able to trace in any other medical work.

[237] This formula occurs in numerous recensions, in Ch., VI, 22 [76] (vv. 172, 173) in V., XI, [42] (v. 134, 147), in AH., IV, 3 [67] (v. 170b, 171), and in S., VI, 52 [564] (v. 18); also *ante*, vv. 467, 468a. The Suśruta recension, however, substitutes *Vachâ* (Acorus Calamus) for *Balâ* (Sida cordifolia), and adds *Śrîṅgî* (Rhus succedanea). Formula VIIIc. is a shorter variant of it.

[238] The fifth formula occurs in another recension in both, Ch., VI, 22 [76] (vv. 45, 46a) and AH., IV, 3 [69] (v. 12).

[239] *Tama-śvâsa*, or *tamaka-śvâsa* is a kind of severe asthma, in which through the violence of the asthmatic attack the patient is said to loose consciousness (*pratâmyati sa vêgêna*). See S., VI, 51 [562], AS., III, 4 [38] (l. 3), AH., III, 4, (v. 2), Nid., p. 67. (Jiv. ed., p. 107, cl. 13), Dṛiḍhabala in Ch., VI, 40 [72], Asthma is said to be of five kinds, among which *tamaka* is one, while *pratamaka* is said to be a variety of *tamaka*, complicated with *jvara*, fever. See note b2.

(VI)

(480.) [239]*Take* of raisins one hundred *palas*[3] by measure, and grind them up into a paste with honey, long pepper, and powdered sugar. This makes a most excellent linctus in *all* cases of cough.[240]

(VII)

(481.) [241]A decoction of long pepper, Vṛihatī (*Solanum indicum*), and Vyāghrī (*Solanum Xanthocarpum*), boiled in milk, and mixed with sugar and clarified butter and honey, makes a medicine which cures consumptive cough.

(VIII)

(482 and 483.) [242](*a*) Bamboo-manna, emblic myrobalan, raisins, fried paddy, long pepper, and sugar; or (*b*) raisins, Karkaṭaka (*Pistacia integerrima*), the three acrids[23], the three myrobalans[15], cumin-seed, and plumbago-root; (483) or (*c*) the three acrids[23], deodar, baberang, the three myrobalans[15], sugar, and Balā (*Sida cordifolia*):—these three *sets of drugs*, contained in half a ślōka each, combined with clarified butter and honey, make linctuses for sufferers from cough.

The PRASTHA Purgative,[243]

in 7 ślōka.[244]

(484—490.) *Take* twenty-five chebulic myrobalans, twenty-five palas[3] of Danti (*Baliospermum montanum*), and as many pala of plumbago-root, and boil *the whole* in

[240] The grammar of this formula is very rugged. Literally it runs thus: 'having ground (*piṣṭvā*) raisins (*drākshāḥ*), one hundred by measure (*prasthāḥ śī śata-prasthāḥ*), into a paste with honey and long pepper; with this *paste* (*ētēna* scl. *pāshpēna*) this linctus of powder of sugar (*sa ītīkaḥ śarkarāyāḥ chūrṇasya*) is most excellent in cases of cough.'

[241] This formula corresponds to Ch., VI, 22 [218] (vv. 86, 87) though there only the first of the three options is the same. The first option is a variant of No I, and the third, of No IV. The second option occurs, in another recension, in Ch., VI, 22 [212] (v. 171), and in a third, somewhat shorter recension, giving only one of the three myrobalans (*Āmalaki*), and only two (*i.e.* long and black peppers) of the three acrids. Compare also the formula No. IV, in v. 435.

[242] This formula is found in a nearly identical recension in Ch., VI, 5 [48] (vv. 150-156). The dietetical direction, given in the last half-verse, occurs only in this recension; no other medical work gives it. There are, however, the following differences in Charaka: 1, it reduces the decoction to one-eighth; 2, in the eighth half verse it reads *kshipēch-chhēna-palaṁ-śkaṁ trag-ēla-patra-kēsarāt*, which, however, does not alter the quantity, for one karsha of each of the four drugs is equal to one pala of the aggregate (one pala being equal to four karsha, see *ante*, note 9); 3, It reads *dadka* or 'habitual constipation' for *utklēda* or 'nausea,' but the latter is given in the recension of Chakradatta (see below). 4, In the last half-line, it reads *nirdṛṣṭaṁ-ch-ēṣṭō* (i.e., *dantī harītakyā*) *dvayō mānsa-rasāśanaḥ*, i.e., 'a safe diet to be observed with (this preparation) is a full (soup) of meat-broth and boiled rice.' 5, In the sixth half-verse, it reads *palaṁ-śkaṁ* or 'one pala' for *ardha-palikaṁ* or 'a quantity of half a pala'; but this does not alter the quantity, for the latter reading refers to each of the two drugs while the former refers to their aggregate. V., XXX [47] (vv. 62-68a) also has this formula in the same recension as Charaka, except that it omits the final dietary direction. In a third recension it is found in AH., IV, 14 [27] (vv. 92-97a), and in a fourth recension, in Ch., XXX, 40 [77] and SY., XXX, vv. 44-48 [37]. Both these recensions agree with Vangasēna in omitting the dietary direction; they also agree with the Charaka recension in reducing the decoction to one-eighth, but differ from it by increasing the quantity of oil and honey to four pala each. —Regarding the name of the formula, in all other recensions it is called *Dantī-harītakī* or *Danti-harītaky-avalēha*. The word *prastha* in the name of our recension is explained in Śivadāsa's old Sanskrit commentary to Chakradatta to mean 'thirteen and one-half pala,' on the authority of Bhōja, a medical writer, and he adds *śōdha-trayōdaśa-palaṁ prastham-āhur-manīshiṇaḥ*, i.e., 'learned men say that a prastha contains thirteen and one-half pala.'

[243] The original text has "5 ślōka and one pāda," *i.e.*, five and one-half ślōka. But the actual number of ślōka composing the formula is seven. The Charaka recension has the same number seven, but the Vangasēna, which omits the dietary half-verse, has only 6½. The Ashṭāṅga Hṛidaya recension has 5½, and the Chakradatta, only 5 ślōka. It may be noted that, in our Manuscript, a half-verse (485a) had originally been omitted by the scribe who added it afterwards at the bottom of the page (fol. 15a), and marked the place of insertion by a cross.

one drôṇa[a] of water, (485) till it is reduced to one-fourth *of its original quantity*. Then strain it, and boil it once more, leaving the chebulic myrobalans in it, and adding clarified treacle in quantity equal to the Dantî (*i.e.*, 25 pala), (486) half a kuḍava[a] of pure oil, four pala of turpeth-root,

Fifteenth Leaf: Reverse.

and half a pala each of powdered long pepper and ginger. (487) Let *all* this be boiled down to the consistency of a linctus, and while it is yet warm add to it honey, in quantity equal to the oil, and one karsha[a] each of cinnamon-bark, cardamoms, cinnamon-leaves and Késara (*Messua ferrea*). (488) Then if he takes one pala of the linctus, and eats with it one of the chebulic myrobalans, the patient, being lubricated thereby, will easily be purged of *as much as* one prastha[a] of vitiated humours, and become healthy. (489) The administration *of this medicine* relieves abdominal tumours, inflammation, piles, morbid pallor,[7] loss of appetite, heart-diseases, chronic diarrhœa, severe jaundice, intermittent fever, (490) black leprosy, spleen, and nausea. If the treatment is to be without any harm, a fixed *diet should be observed consisting* of meat-broth with boiled rice.

A Formula for preparing a Medicated Liquor with Honey.[244]

(491—493.) Take one karsha[a] each of Rôdhra (*Symplocos racemosa*), zedoary-root, orris-root,[11] cardamoms, Mûrvâ (*Sanseviera zeylanica*), baberang, turpeth-root, lovage, Chavya (*Piper Chaba*), Priyaṅgu (*Aglaia Roxburghiana*), lotus, Viśâlâ (*Cytrullus Colocynthis*), chiretta, and Kaṭukarôhiṇî (*Picrorrhiza Kurroa*), (492) *and* boil *the whole* in one drôṇa[a] of water, till it is reduced to one-fourth *of its original quantity. Then* strain the resulting liquid, add to it one-half as much of honey, and keep *the whole* for half a month, in a vessel used for clarified butter.[245] (493) The Madhvâsava[246], (*i.e.*, liquor medicated with honey,) if taken in doses of two pala[a] each, speedily cures morbid secretion of urine due to *vitiated* phlegm or bile, also morbid pallor[7], piles, loss of appetite, chronic diarrhœa[246], leucoderma, and the various kinds of skin-disease.[64]

(Six Formulae for the Cure of Fever,) in 11 ślôka.[247]

(I)

(494 and 495*a*.) [248]Madhûka, (*Bassia latifolia*), Musta (*Cyperus rotundus*), raisins,

[244] This formula is found, in a practically identical recension in Ch., VI, 6 (vv. 39-42), where it is also called *Madhvâsava*; Ch. (G.), p. 175, however calls it by the name *Lôdhrâsavaḥ*. In another recension it occurs in AH., IV, 12 [288] (vv. 24-28*a*), and is here also called *Rôdhrâsavaḥ*. In our Manuscript the formula consists of 14 drugs enumerated in one verse (v. 493); Charaka adds another verse giving 14 additional drugs, or a total of 28 drugs. The omission of this additional verse in our Manuscript would seem to be a clerical error. Further Charaka reads *Tripâlîkâ* for *Tvakkṣîrîkâ* and *Kramukaḥ* or 'betel-nut' (Areca Catechu) for *Kumudaḥ* or 'lotus'; and as these readings are supported by the Aṣṭâṅga Hṛidaya recension, they would seem to be the correct ones.

[246] *Madhvâsavaṃ* is the name of the formula. On *âsava*, see note 52.

[247] *Grahaṇyaḥ* (acc. plur.) in the original text is a false reading for *grahaṇyâḥ* (gen. sing.), and is to be constructed with *dôṣâṇâṃ* which does not denote a separate disease, see note 122.

[247] The original text reads "10 ślôka." The actual total, from v. 494 to v. 505*b*, however, is 11. There cannot well have been more than half a ślôka (v. 505*a*) to fill up the lacuna at the end of the first line of the obverse of the sixteenth leaf. This is shown by a comparison with the corresponding eleventh line of the reverse of the same leaf, where the lacuna can actually be fully supplied from other medical works. The original leaf, as used by the scribe, must have been a little damaged at this place, otherwise the two lines would have admitted of more writing.—Of these six formulas only the three first can be traced elsewhere.

[248] This formula occurs in the identical recension in Ch., VI, 3 [401] (v. 201, 202*a*). In a second recension it is found in AH., IV, 1 [318] (vv. 7, 8*a*).

Kârshmarya (*Gmelina arborea*), Parûshaka (*Grewia asiatica*), Trâyamâṇa[98], Uśîra (*Andropogon muricatus*), the three myrobalans[15], and Kaṭurôhiṇî (*Picrorrhiza Kurroa*): —(495*a*) a draught, made of these and allowed to stand over-night, will speedily cure the patient of his fever.

(II)

(495*b*—496*a*.) [99]*Take* long pepper, sugar, and honey, mix with clarified butter, and boil in milk. (496*a*) This *mixture, called* Pañchasâra (*i.e.*, made of five ingredients) may be taken to cure consumptive fever and cough.

(III)

(496*b*—499*a*.) [100](*a*) Seeds of Kaliṅga (*Holarrhena antidysenterica*), leaves of Paṭôla (*Tricosanthes dioica*), and Kaṭukarôhiṇî (*Picrorrhiza Kurroa*); (497) or (*b*) Paṭôla (*Tricosanthes dioica*), Sârivâ (*Ichnocarpus frutescens*), Musta (*Cyperus rotundus*), Pâṭhâ (*Stephania hernandifolia*), and Kaṭukarôhiṇî (*Picrorrhiza Kurroa*); or (*c*) nîm, Paṭôla (*Tricosanthes dioica*), the three myrobalans[15], raisins, Musta (*Cyperus rotundus*), and Vatsaka (*Holarrhena antidysenterica*); (498) *or* (*d*) chiretta, Amṛitâ (*Tinospora cordifolia*), sandal, and ginger; *or* (*e*) Guḍûchî (*Tinospora cordifolia*), emblic myrobalan, Musta (*Cyperus rotundus*);—a decoction, made of *any one of the five sets of drugs* comprised in *one of the foregoing* half-ślôka, (499*a*) will relieve at once *any one of* the five kinds of cough.

(IV)

(500.) [101]Nîm-leaves, together with Paṭôla (*Tricosanthes dioica*), sandal, Bhadramusta (*Cyperus rotundus*), emblic myrobalan, and chebulic myrobalan, boiled in water and *mixed* with clarified butter and sugar, give relief to a patient's fever when it proceeds from the three humours.

(V)

(501.) [102]The three sweets[321], two parts each of the three myrobalans[15] and Pâṭhâ (*Stephania hernandifolia*), and one part each of madder and Sârivâ (*Ichnocarpus frutescens*), mixed with an equal quantity of water, and strained through *a piece of* clean cloth, make a decoction for the relief of every *kind of* fever.

(VI)

(502 and 505*a*.) [103]*Take* sandal, filaments of lotus[322], Musta (*Cyperus rotundus*), Kaṭukarôhiṇî (*Picrorrhiza Kurroa*), Vatsaka (*Holarrhena antidysenterica*), Trâyamâṇâ[98], raisins, and wild Parûshaka (*Grewia asiatica*); (503) also Madhûka (*Bassia latifolia*), Śitapâka (or Kakôlî[97]), liquorice, and sugar; also both Jîvaka[71] and Ṛishabhaka[71], as well as emblic myrobalans;

[99] This formula is only found in V., I[14] (v. 585) in a different recension.

[100] This quinary formula is found, in the identical recension, in Ch., VI, 3[402] (vv.196-198), VII[28] (vv. 575-576), SY., I, 118-120[38], Ch̃d., I, 154[81], and in a very slightly different recension in AH., IV, 1[248] (vv. 48-51*a*).

[101] *Madhu-trika* or *Madhura-trika* (or *Madhu-traya*), 'the true sweet (things)' are *madhu* 'honey', *śarkarâ* 'sugar,' and *ghṛita* 'clarified butter.' So in the Râjanighaṇṭu, according to the Śabdakalpadruma dictionary.

[102] Read *pañcha-kôśaraṃ* to supply the lacuna in the original text.

Sixteenth Leaf: Obverse.

(504) . . . . . in a wooden mortar, let it stand for a night, and administer it with sugar. (505*a*) This decoction *will serve as a remedy for fever* due to *vitiated* air *and* . . . . . .

(Two Formulae for the Cure of Heart-Diseases and others.[283])

(I)

(505*b*—506*a*.) Chebulic myrobalan, asafœtida, long pepper, lovage, and Indian sorrel:—(506*a*) one aksha[9] each of these may be taken in the form of a draught (as a remedy for heart-diseases).

(II)

(506*b*—508*a*.) . . . . . (507) are said to make an excellent stomachic preparation *which is* highly valued in the case of heart-diseases, severe pains in the side, and abdominal tumours due to *vitiated* air; (508*a*) also in the case of wind staying *in excess* in the stomach,[284] . . . . . .

Nine Formulae for the Cure of Headache,

in 13 ślōka.[284]

(I)

(508*b* and 509*a*.) [10]An errhine made of . . . . . (509*a*) is highly recommended as a remedy for head-diseases.

(II)

(510 and 511*a*.) [285](*a*) In the case of headache, sandal, Kushṭha (*Saussurea Lappa*), Nata (*Tabernæmontana coronaria*), and blue lotus, made up with clarified butter into a poultice, are useful; or (*b*) take equal parts of ginger, cardamoms, white lotus-flower, blue lotus, Prapauṇḍarika,[181] deodar, and Kushṭha (*Saussurea Lappa*), (511*a*) also Padmaka (*Prunus Puddum*), and *Chōraka (*Trigonella corniculata*), and *make them up* with clarified butter *into* a poultice *as a cure* for headache.

[283] Neither of these two formulae are traceable elsewhere, though owing to their extremely mutilated condition, it is difficult to say so with certainty.

[284] The Manuscript reads "16 ślōka." Strictly there are only 12½ ślōka, as verses 509 and 513 are only ½ ślōka each. But as the leaf is so much mutilated, it is just possible that there may have been somewhere an additional half-ślōka, and if so the full number is thirteen. To these may be added the 3 ślōka of the preceding set of formulae. This produces the total of 16 ślōka, which appears to be what is intended by the original text.—The Manuscript reads "five formulae," but there are really nine. After verse 518*a* there is a sign which may be intended to mark the discrepancy.

[285] This double formula is found in Chd., LXIV, 15 [cd] in a slightly different recension, which adds *Lōdra* (aloes) and *Ervaka* (*Typha angustifolia*) to the *b* formula. The latter, according to Dr. Cordier, occurs also in KS., VI, v. 33. In the Chakradatta recension it runs as follows: *Nat-ōtpalaṁ chandana-kushṭha-yuktaṁ tilō-rujāyāṁ sa-ghṛitaḥ prōdhaḥ prapauṇḍarīkaṁ suvaddēru kushṭhaṁ yuktyā-hvaya-ślō kamal-ōtpalē cha ‖ tilō-rujāyāṁ sa-ghṛitaḥ prōdhō lōk-airukā-padmaka-chōrakaiś-cha ‖*

(III)

(511*b*—513*a*) [255] . . . . . (512) or best clarified butter, boiled with jujubes, may be administered as an errhine; and after the discharge has taken place, clarified butter may also be taken as a drink, ... (513*a*), and when food is taken, it may be taken with treacle.

(IV)

(514.) [257]The root and fruit of the bél tree may be administered in the form of an errhine. By its administration headache is quickly relieved.

(V)

(515.) [258]Collecting . . . . . , the physician may boil it as a medicated oil, and then administer it as an errhine for the cure of headache.

(VI)

(516.) [259] . . . . . , it should be repeatedly given as an errhine.

(VII)

(517 and 518*a*.) [260]One part of oil and the same quantity of Pâṭala (*Stereospermum suaveolens*), ... (518*a*) are well-known to make an excellent plaster *to be applied* to the forehead as a remedy against headache.

(VIII)

(518*b* and 519.) [261]Salt, ginger, ... (519) . . . . . plumbago-root and Tinduka (*Diospyros embryopteris*), mixed with goat's urine, makes a plaster which cures headache.

(IX)

(520 and 521.) [262] . . . . . .

Sixteenth Leaf: Reverse.

[263]Kaṇḍira (*Momordica Charantia*), and root of Mârka (*Eclipta alba*), the three myrobalans[264], *and* seeds of the pungent Indian mustard, (521) mixed with cow's urine, makes a plaster for the cure of headache, (or it may be prepared) with rain-water.

[255] This formula is mutilated, and I have not been able to identify it, but in elucidation of its direction see AH., I, 20 (v. 22), where after the errhine some *sneha* is enjoined to be given.

[257] This formula, according to Dr. Cordier, is also found in KS., VI, v. 34.

[258] *Kampilra* is the smaller, muricated variety of Momordica Charantia. See Phar. Ind., Vol. II, pp. 78, 79.

(Three Formulae for the Cure of Coryza[259].)

(I)

(522 and 523*a*.) [259]Take . . . . . cumin-seed, and *Chôraka (*Trigonella corniculata*) as well as seeds of Kaṇṭakârî (*Solanum xanthocarpum*), and powder them very finely. This makes a most excellent medicine.

(II)

(523*b* and 524*a*.) [260]Vârtâka (*Solanum indicum*), Kulaka (*Trichosanthes dioica*), the three acrids[29], Kulattha (*Dolichos biflorus*), Aḍhakî (*Cajanus indicus*), and Mudga (*Phaseolus Mungo*):—(524*a*) if the patient drinks a decoction of these pulses, he gets rid of his nasal catarrh.

(III)

(524*b*.) [261]*The patient may also inhale the fumes produced* from powdered parched grain, well mixed with clarified butter, and made to burn in a crucible covered with a lid.

(Six Formulae for the Cure of Toothache.[262])

(I)

(525.) [263]Having burnt Kaṇḍîra (*Momordica Charantia*)[264], to ashes with fire, let a wise *patient* who is tormented by toothache rub it on the inside of his teeth.

(II)

(526*a*.) [264]Toothache is relieved by the application of one part of . . . . . .

(III)

(526*b*—528.) [265]Gather cumin-seed, ginger, and baberang (527) and having mixed them with honey and vinegar, crunch them with the points of the teeth; also let the set of ten drugs[109], made into a paste with clarified butter, be given; then, *having boiled it* over a fire in an iron vessel . . . . . .

[259] The original text is too much mutilated to be quite certain as to the number of formulae and *ślôka*. It appears to me, however, that there are three formulae, for a powder, a decoction, and an inhalation respectively. To judge by the trace *pô*, at the beginning of the 5th line, the original would seem to have counted 3½ (or perhaps only 2½) *ślôka*, for these three formulae.—The first formulae, according to Dr. Cordier, is found in KS., VIII, v. 5.

[260] The fragment of this formula may, with much probability, be identified with the formula for a decoction given in Ch., VI, 26 [75] (v. 138). It occurs, in different variations, in most medical works; *e.g.*, V., LXV [77] (v. 77*a*), AH., VI, 20 [33] (v. 4*a*), Chl., LXI, 1 [84]. The *Śâṅ-ârga* decoction, referred to in the last citate, is given in the section on the *yakshmas* disease, *ibid.*, X, 31 [104], V., IX [31] (vv. 30-35).

[261] This fragment can almost certainly be identified with the formula for an inhalation, given, in almost identical terms, in Ch., VI, 26 [76] (v. 118*a*), V., LXV [78] (v. 71), AH., VI, 20 [83] (v. 8*b*), SY., LX, 18 [48], Chl., LXI, 13 [89], where it runs thus: *atkaved sa-ghṛitâ-taktâs-kṛited mallaka-sathpuṭê*. In order to understand the formula, the word *pieds* (sc. *dhûman*) must be supplied from the preceding formula. The process, indicated in this formula, is thus explained by Śivadâsa in his commentary to Chakradatta "powdered parched barley should be placed in a *tardna* or brazier filled with hot coals and covered over with another *tardna*. The latter should be provided with a hole. Through this hole, a piece of hollow reed is to be inserted, and the fumes inhaled by means of it."

[262] I count six formulae, but owing to the extremely mutilated condition of the text, the exact number must remain uncertain. The first formula, according to Dr. Cordier, occurs in KS., X, v. 1.

[263] The first part of this formula (v. 526*b*, 527*a*), according to Dr. Cordier, occurs in KS., X, v. 2.

(IV)

(529.) [284]Nichula (*Baringtonia acutangula*), white mustard, long pepper, and ginger, also alkaline ashes, and salt, make a gargle for the cure of toothache.

(V)

(530.) [285]A pill prepared of a well-made paste of Sômarâjî (*Vernonia anthelmintica*) will make an excellent gargle for the cure of toothache.

(VI)

(531.) [286]Carbonate of potash and ginger, done carefully into a paste, with vinegar will make an excellent gargle for the removal of toothache.

(Six Formulae for the Cure of Diseases of the Ear.[287])

(I)

(532 and 533*a*.) [287]Take asafœtida, extract of Śigruka (*Moringa pterygosperma*), Kushṭha (*Saussurea Lappa*), also Tagara (*Tabernæmontana coronaria*), and Śatapushpâ (*Peucedanum graveolens*), and Musṭa (*Cyperus rotundus*), and let them be boiled in oil. (533*a*) With this *preparation* may be filled the ear of a patient who suffers from severe pain in the ear.

(II)

(533*b* and 534*a*.) [287](*a*) In the case of hissing in the ear or noises in the ear, one should fill the ear with pungent oil. (534*a*) (*b*) In the case of noises or deafness the same remedies may be used as in the case of severe pains in the ear.

(III)

(534*b*—537*a*.) [288]Long pepper, root of the bél tree, Kushṭha (*Saussurea Lappa*), and liquorice, (535) also Mâṁsî (*Nardoshachya jatamansi*), Vyâghranakha (*Unguis odoratus*), Ródhra (*Symplocos racemosa*), small cardamoms, and deodar:—with a paste made of these *drugs* boil one prastha[3] of oil over a gentle fire.

Seventeenth Leaf: Obverse.

(536.) *Then* expressing the juice of radishes, add it, mixed with some oleaginous substance.[289] Of this *preparation* pour as much as a pichu[2], into the ear, or use it as an injection into the bowels. (537*a*) By means of it the most excruciating earache may be quickly relieved.

[284] This formula is probably identical with one which occurs, in a somewhat similar recension, in S., IV, 22 [42] (vv. 18b, 19a), where it runs as follows: *pippalî-varshabhû ê-ch-âvira adgarash naichalash phalam | sukh-âmlikâbhir saṁyishṭash kavalash ch-âpi dâdrayêt.* In a slightly different form it is found in SY., LVIII, 19 [43], Chd., LVII, 9 [87]; V., LXIII (v. 77) [84] and, according to Dr. Cordier, KS., X., 4.

[285] Formulae V and VI, according to Dr. Cordier, occur in KS., X. vv. 4b-6.

[286] The original text is too much mutilated to determine with certainty whether there were six or seven formulae. The first formula, according to Dr. Cordier, occurs in KS., VII, vv. 21, 22a.

[287] This formula occurs identically in SY., LIX, 23 [69], Chd., LX, 13 [88], V., LXIV, 54 [76], and in another recension in Bhp., II, 4 [19]. Its second part also occurs identically in AH., VI, 18 [69] (v. 23a). The combined formulae I and II correspond to Ch., VI, 26 [70] (vv. 216c-220a). See note 270.

[288] This formula occurs in V., LXIV, 48-50 [76], and (according to Dr. Cordier) KS., VII, 5-7. The V. recension, however, substitutes *Agave* (sâlas) for *Ródhra*, and reads *Kśîra-Mûlaka-rasau* (juices of *Kśîra* and radishes) for *nishpîḍya*, etc. The name *Kśîrî* for a drug is not found elsewhere; but as in the sense of 'bracelet', it is a synonym of *Vâlaka*, and as the latter is also the name of the drug Pavonia odorata, it may possibly signify the latter drug.

[289] On *sneha* or 'oleaginous substance,' see *ante*, Part I, note 21.

(IV)

(537*b* and 538*a*.) [270]Procure urine of a hog, or urine of a child, and having soaked with it (*some*) alkaline ashes of long pepper, boil *the whole* in oil as a remedy for diseases of the ear.

(V)

(538*b* and 539*a*.) (Another remedy for diseases of the ear, entirely wanting.)

(VI)

(539*b* and 540*a*.) [271]Take the fat of a cock, and boil it with Sthûla (*Artocarpus integrifolia*) and Mâsha (*Phaseolus Roxburghii*), (540*a*) . . . . . .

(Formulae for the Cure of various Skin-diseases.)[272]

(I)

(540*b*—542*a*.) [273] . . . . . ; (541) Putting all these together, for days . . . . . (542*a*) . . . . . .

(II)

(542*b*—544.) [273]Kakubha (*Terminalia arjuna*), oil of Sumanâ (*Jasminum grandiflorum*), Varanî (*Crataeva religiosa*), . . . (543) . . . . . These a wise *physician* should boil, (544) and (allow to stand) for seven nights, at an auspicious (time) . . . . . .

(III)

(545 and 546.) [274]Boil alkaline ashes, long pepper, Kushtha (*Saussurea Lappa*), orpiment, realgar, Katphala (*Myrica sapida*), and leaf-stalk of the lotus in oil as the eighth ingredient. (546) By means of this *oil* attacks of eczema, black leprosy, ringworm, keloid, psoriasis, as well as every kind of white leprosy may quickly be removed.

(IV)

(547 and 548.) [275]Turmeric, red ochre, honey of the small bee, sulphate of iron, and rock-salt, ... (548) . . . . . These, boiled with oil, will make an excellent ointment for *the cure of* skin-diseases.

[270] This formula, according to Dr. Cordier, occurs in KS., VII, vv. 23*b*, 24*a*. Compare with it a long formula for the preparation of a *kshâra-taila* or 'oil prepared with vegetable ashes,' given in Ch., VI. 26[70] (vv. 216*b*-220*a*), V. LXIV [70] (vv. 65-67), SŚ., LIX, 16-22 [62], Ghd., LX, 12 [40], AH., VI, 18 [40] (vv. 20-30*a*). A *kshâra-taila* of plantain leaves is mentioned in v. 571.

[271] With this fragmentary formula may be compared one in S., VI, 21 [70] (vv. 11*b*, 12*a*), which prescribes the fat of a cock with *Kanjakshîri* (Solanum xanthocarpum) and goat's milk; and another in V., LXIV [70] (v. 59) which prescribes pig's fat together with *Mâsha*, liquorice, and the two *Kakôlî* (see *ante*, note 82). See also the formula in S., VI, 21 [70] (v. 6).

[272] Owing to the extensive mutilation of the original text, it is impossible to fix the number of formulae; but that they all had reference to the cure of various kinds of skin-diseases is evident from the traces still preserved.—On the skin-diseases, see *ante*, note 64.

[273] Compare the two formulae in S., IV, 10 [40] (§§ 2, 4) on skin-diseases. In both the mixture is prescribed to be kept standing for seven nights to macerate.

[274] This formula, according to Dr. Cordier, is found in KS., VIII, vv. 19-20.

(V)

(549 and 550.) [275] . . . . . (550) Of these a paste may be made as a remedy for ringworm and (other) skin-diseases, after washing them with the brine of saline earth.

(VI)

(551 and 552.) (Line 11.) . . . with turmeric and bêl . . . .

Seventeenth Leaf: Reverse.

(557.) (Line 3.) . . . sulphate of copper and Mustâ (*Cyperus rotundus*) . . . .
(558.) (Line 4.) . . . . . let *the patient* eat . . . . . .

(VII)

(562*b* and 563.) [276] Nalada (*Nardostachys Jatamansi*), white sandal, Mustâ (*Cyperus rotundus*), Naktamâlâ (*Pongamia glabra*), with Vatsaka (*Holarrhena antidysenterica*), (563) . . . . . .

(VIII)

(564 and 565*a*.) [276] A paste made of Madhukâ (*Bassia latifolia*), nim, cumin-seed, Kritamâlâ (*Cassia fistula*), with Vatsaka (*Holarrhena antidysenterica*), butter-milk, galena, and Kushṭha (*Saussurea Lappa*), and applied as a plaster, (565) is a remedy against black leprosy, eczema, scabies, and ringworm.

(566.) (Line 9.) . . . . Mustâ (*Cyperus rotundus*), Rôdhra (*Symplocos racemosa*) . . . . .

(568.) (Line 10.) [275] . . . . . (It cures) scabies, exanthematic and pustular (skin-diseases).

(Four) Formulae for the Cure of White Skin-diseases,[277]
in 6 ślôka.
. . (I and II)

(569.) (Line 11) . . . . . cures many (skin-diseases).

Eighteenth Leaf: Obverse.

(570.) It relieves (white skin-diseases): there is no doubt of it.

[275] Compare this formula with V., LV. 67 [sq], and below, v. 568 with AH., IV. 10 [19] (v. 66).

[276] Formulae VII and VIII, according to Dr. Cordier, occur in KS., XVIII, vv. 2, 3.

[277] Owing to the extensive mutilation of the text, the exact number of the formulae is uncertain. Moreover, I have only been able to identify the third formula. The fourth, though fairly complete in our text, I have not been able to trace satisfactorily.—Of the *sidhma* or 'white skin-diseases,' there are two kinds: the 'greater' or the well-known white leprosy and the 'lesser' or pityriasis; see Nid., pp. 175-179.

(III)

(571 and 572.) [275] (*a*) White skin-diseases may be cured by *the application of* oil *prepared* with the ashes of plantain-*stalks*. (*b*) *The ashes of* Apâmârga (*Achyranthes aspera*), prepared in the same way, may also be used ; (572) or (*c*) . . . . . *mixed* with hare's blood.

(IV)

(573 and 574) [276](*a*) The five ingredients consisting of the castor-plant, Tagara (*Tabernæmontana coronaria*), Kushṭha (*Saussurea Lappa*), plumbago-root, and urine ; again (*b*) root of Âṭarûshaka (*Adhatoda Vasica*), Shadgranthâ (*Acorus Calamus*), and liquorice, (574) also Trapunâḍa (*Cassia Tora*), baberang, rock-salt, Paripêlava (*Cyperus rotundus*), ... and the milky juice of Śnuhî (*Euphorbia neriifolia*) make a grand remedy for white skin-diseases.

Seven Formulæ for the Cure of Strangury,[280]
in 9 ślôka.

(I)

(575.) [281] Milk should be boiled with treacle, and may then be drunk lukewarm as desired. This has been said by the Aśvins[128] to be a most effective medicine for strangury.

(II)

(576.) [282] A potion may be made of raisins, sugar, and whey. This is declared to be an unfailing medicine for strangury.

(III)

(577.) [283] Make a paste of one aksha[9] of the seeds of Êrvâruka (*Cucumis utilissimus*). This, when drunk with a suitable quantity of vinegar and salt, will cure the patient of strangury.

(IV)

(578.) [284] Twice one aksha[9] of saffron, made into a paste with the juice of raisins, and allowed to stand *in water* for one night, will cure the patient who drinks it of strangury.

[275] The two first alternatives of this formula are found, in another recension, in SY., LI, 17 [675], V., LV [668] (v. 71) and Chd., I, 8 [405] where *Apâmârga* is mentioned under its synonym *Śikharin*. The first and third alternatives are found, in another recension, in Ch., VI, 7 [247] (v. 164). The second alternative, in a different recension, is also found in V., LV [669] (v. 79) and AH., IV, 19 [470] (v. 75), where *Apâmârga* is mentioned under its synonym *Mayûraka*.

[276] With the second alternative of this formula may be compared one given in V., LV [668] (v. 80).

[280] There is some confusion in the original text. The remark which stands at the end of verse 581, should come at the end of verse 583 ; and the remark which stands there should read *ślôka* instead of *yôga*. For there are seven *yôga* or formulæ in nine *ślôka*.

[281] This formula occurs, in a practically identical recension in V., XXXIII [668] (v. 39*b*). In a second recension, which adds clarified butter, it is found in SY., XXXIII, 95 [595], V., XXXIV [670] (v. 37*b*), Chd., XXXIII, 75 [599], and BhP., II, 3 [47]. In a third recension, similar to the second, it is given in S., VI, 58 (v. 40*a*) [585].

[282] This formula is found, in a slightly different recension, in V., XXXIII [668] (v. 37) and BhP., II, 3 [46], and in a third recension in S., VI, 58 (v. 28) [581] and Chd., XXXIII, 15 [588].

[283] This formula is found, in another recension, which prescribes honey and only one aksha of saffron, in S., VI, 58 [582] (v. 30). In a third recension, which prescribes no quantity at all, it occurs in SY., XXXIII, 4 [593], V., XXXIV [669] (v. 34*b*) Chd., XXXIII, 4*a* [587] and BhP., II, 3 [47]. Compare also AH., IV., 11 [383] (v. 7).

(V)

(579.) [284]A paste made of finely pulverised iron may be drunk with honey. This is said by the Aśvins[285] to be an unfailing medicine for strangury.

(VI)

(580 and 581.) [286]Kharâśvâ (*Carum Roxburghianum*), asafœtida, Surasa (*Ocimum sanctum*), Hiràvêra (*Pavonia odorata*), rasot, roots of plumbago and Tràyamâṇa[287]: —(581) equal parts of these may be taken as a potion with honey. This relieves all pains in the sides and strangury.

(VII)

(582 and 583.) [288](*a*) In a case of strangury *hot* water dressing should always be made with a decoction of the roots of Śara (*Saccharum Sara*), Kâsa (*Saccharum spontaneum*), sugar-cane, Darbha (*Imperata cylindrica*), Vîraṇa (*Andropogon muricatus*)[289], and Gôkshura (*Tribulus terrestris*); (583) or (*b*) *the patient* may drink a potion of safflower, rice-water and madhudrava (*Moringa concanensis*); or (*c*) a milk-clyster, as prescribed [290] may be administered, and sudorific applications may be made.

(A Formula for the Cure of Epistaxis.[291])

(584.) [292]In the case of bleeding from the nose *the application of* a liquid errhine[293] is recommended, *which may be made* with raisins, sugar-cane, the fresh juice of Dûrvâ (*Cynodon dactylon*), conch-shell, red ochre, and (white) sandal.

(Four Formulae for the Cure of Inflammation.)

(I)

(585.) [294](*a*) To one who suffers from an inflammation radishes, boiled in water and butter-milk, may be given; or (*b*) he may eat chebulic myrobalans with treacle, or (*c*) dry ginger with treacle.

(II)

(586.) [295] (*a*) For the purpose of reducing an inflamed swelling, *the patient* should drink Punarnavâ (*Boerhaavia diffusa*), deodar, and old ginger, with milk, for three days; (587) *or* (*b*) he should drink chebulic myrobalan, deodar, ginger, and Punarnavâ (*Boer-*

[284] This formula occurs, in a different recension, in SY., XXXII, 21 [285], V., XXXIII [286] (v. 48), Ch., XXXII, 20a [284] and BhP., II, 3 [287]. Compare also HS., III, 29 [288] (l. 8).

[285] There is no formula like this elsewhere, but the substance of it is found incorporated in many formulae, such as V., XXXVIII (vv. 17, 43) [289], XXXVI (v. 48) [286], AH., IV, 11 [289] (vv. 6, 22), BhP., II, 3 [285].

[286] The milk-clyster, the prescription of which is here referred to, probably stood on the lost twentieth or twenty-first leaves. Those leaves contained a portion of the fifth chapter which treats of the preparation of clysters. It might be the enema described in verses 645-649.

[287] Neither this nor the following heading is found in the original text, where all the formulae, referring to epistaxis, inflammation and emesis are lumped together under the heading for emesis. See note 291.

[288] *Avapîḍa* or 'liquid errhine' is a kind of *tîkshṇavirêchana*. See *ante*, Part I, note 78. It consists of pungent drugs, dropped into the nose. When blown in, in the form of powder, the errhine is called *pradhamana* (spelled *pradhamana* in Part I, v. 55). See Mat. Med., p. 17; AH., I, 20 (v. 7b) [290].

[289] I have only been able to trace the second and third alternatives in slightly different recensions, in Ch., VI, 17 [287] (v. 25), SY, XXXIX, 11-12 [287], V., XXXIX [287] (vv. 69b, 80a); Ch., XXXIX, 9b, 10a [287], AH., IV, 17 [288] (v. 5b).

[290] Only the second alternative of this formula, in a different recension, is found in Ch., VI, 17 [287] (v. 20). Compare, however, similar formulae in AH., IV, 17 [288] (v. 2b), V., XXXIX [286] (vv. 39, 56, 72) and Ch., XXXIX, 5 [287], 8c [288].

haavia diffusa), with cow's urine. After digestion, he should bathe, and may then be given milk to drink.

(III)

(588 and 589.) [289]Take three pala[a] of chebulic myrobalans, and one pala each of the three acrids[29], also one karsha[a] each of (honey and) oil, and half a tulâ[a] of treacle. (589) These make the boluses called after Agasti, and may be taken after one's meal. They serve to relieve inflammation, piles, chronic diarrhœa, cough, and retention of discharges.

(IV)

(590—592.) [290](*a*) *Mix* equal parts of the three myrobalans[15], Musta (*Cyperus rotundus*), and baberang;

Eighteenth Leaf: Reverse.

also equal parts of . . . . . and pulverised iron, and take them as a linctus *made* with honey and clarified butter. (591) Follow this up with a draught of milk and, after digestion, make another meal of milk; or drink a double quantity of urine and one kudava[a] of milk; (592) or take a drink *made* of the three acrids[29], or of cow's urine, as a purgative. (*b*) Barley-dishes, game, spirits of sugar-cane, and hot vapour baths are also remedies for inflammation.

(Five) Formulae for the Cure of Emesis,

in five ślôka.[291]

(I)

(593.) [292]In a case of emesis a patient who suffers from thirst and internal heat should drink rice-water with pomegranate, liquorice, Rôdhra (*Symplocos racemosa*), calyxes of the banyan-tree, sugar, and honey.

(II)

(594.) [293]Or he may, in a case of emesis, take a linctus made with honey from the kernel of jujubes,[294] galena, sugar, grains of long pepper, fried paddy, and bees' excrement.

(III)

(595*a*.) [295]*A linctus*, made of the powder of mango-kernels with water, serves also as a remedy for morbid thirst, emesis, and acute diarrhœa.

[289] The original has "14 ślôka," which number is made up by counting together all the verses from 584 to 597, comprising three distinct sets of formulae. See note 287.

[290] This formula is only found in V., XV [305] (v. 69), and Chd., XVI, 11 [295], though in a different recension.

[291] This formula is found, in a different recension, in Chd., VI, 23 [716] (v. 27). In a third recension, omitting galena, it occurs in AH., IV 31 [24] (v. 165). In a fourth recension substituting emblic myrobalan for galena, and omitting fried paddy, it occurs in SY., XV, 21 [37], V., XV [308] (v. 46) and Chd., XV, 23 [28]. In S., VI, 49 [309] it is broken up into two separate formulae, verses 28*a* and 30*b*, the former of which is also given in V., XV [302] (v. 25*a*).

[294] *Kôla-majjan* is explained in AH., I, 6 (v. 122-123) as *asthy-abhy antaram*, or the inside of the stones of the jujube.

[295] There is no formula like this anywhere; but compare V., XV [308] (v. 57*a*).

(IV)

(595*b* and 596*a*.) [296](*a*) Sprouts of the citron and jâman trees, sugar, and honey may be taken as a linctus, in a case of emesis; (596*a*) or (*b*) they may be taken as a draught when squashed in cold water.

(V)

(596*b* and 597.) [297](*a*) In a case of emesis *the patient* may eat fried paddy mixed with honey; or (*b*) chebulic myrobalan with small bees' honey; (597) or (*c*) he may eat wood-apples with the three acrids[23]; or (*d*) he may drink them with split-Mudga (*Phaseolus Mungo*) steeped in water; or (*e*) he may drink a paste of (white) sandal with the juice of emblic myrobalans.

(Three) Formulae for the Relief of Morbid Thirst.

(I)

(598 and 599*a*.) [298](*a*) In a case of morbid thirst grains of red rice with blue lotus and galena, a baked clod of clay[298], honey, raisins, dates, and Parûshaka (*Grewia asiatica*) should be kept standing[299] in water, and drunk cool, (*b*) and with sugared water and milk.

(II)

(599*b*—601*a*) [300]Take equal parts of sugar, baberang, liquorice, long pepper, with emblic myrobalan and rock-salt, (600) clarified butter, honey, chebulic myrobalan, and oil, and sixteen parts of powdered parched grain, and drink *the whole* with water as a refreshing medicine,[301] (601*a*) which cures morbid thirst, abdominal tumours, fever and piles, acts as an aphrodisiac, and relieves chronic diarrhœa.

[296] There is no formula like this elsewhere, but the second alternative agrees substantially with Ch. VI, 23 [216] (v. 8) and V., XV [308] (vv. 54, 58).

[297] The first alternative of this formula does not occur, in this form, elsewhere. The second alternative, in another recension, is found in SY., XV, S [271], V., XV [309] (v. 23*a*) and Chk., XV, 7*a* [295], and, in a third recension, in AH., IV, 6 [307] (v. 17*a*). The third, fourth and fifth alternatives are found in another recension in S., VI, 49 [248] (v. 27*b* and 30*a*) and AH., IV, 6 [307] (vv. 16*a* and 21*a*). The fifth alternative also occurs, in a different recension, in Ch., VI, 23 [216] (v. 30) and in a third recension, in SY., XV, 6 [271], V., XV [306] (v. 19), and Chk., XV, 5*a* [295].

[298] The first part of this formula is found in Ch., VI, 24 [220] in two different recensions, vv. 40 and 41. The second part, in this form, I cannot trace elsewhere.

[299] *Lôkhta* is salt, in the Med. Dict., to mean (in addition to other things) iron dust (*lauha-rajas*), and in the Śabdakalpadruma, iron refuse (*lôha-mala*), on the authority of the Râja Nighaṇṭu; but that work does not mention the word *lookta* at all. The only meaning with which the word is known to the Indian vocabularies (*e. g.*, Amarakôśa) is *mṛittikâ-bhanḍa*, or clod of clay; and this would seem to be its real meaning also in our verse; for in the variant of Charaka (verse 41, in note 298) the direction is *pakted dwa-lôkṭam*, having baked a raw clod of clay. The use of clay in Indian medicine is mentioned in Mat. Med., p. 23 (rev. ed.). As to iron dust, Mat. Med., p. 46, explains it as "small particles of iron which are scattered around when hot iron is beaten on the anvil; they are allowed to remain in contact with the earth till they become very rusty and brittle, when they are considered fit for use." They are known as *mandûra* or as *lôha-kiṭṭa*, *lôh-âchchhâdya*, iron refuse, or *lôha-chûrṇa*, iron dust, etc. Possibly clay, or earth, mixed with these iron particles may be meant here by *lôhkṭa*; but the commentators of the two Charaka formulæ do not attempt to explain the word. In the Ashṭâṅga Hṛidaya it occurs twice (II, 5, v. 118, and VI, 36, v. 41); but in both cases it has the ordinary meaning of a clod of clay.

[300] The reading *sthâtam* of the original text is supported by all the Manuscripts of Charaka known to me (Ind. Off. Nos. 335, 339, Deccan Coll. No. 925, Tübingen Nos. 458, 459). The emendation *tritam*, which I had adopted from the Jîvânanda edition, should therefore be cancelled on p. 55, footnote 144.

[301] *Tarpana* is a kind of sherbet, or refreshing drink. For another recipe see Chk., I, 29 [35]. In its simplest form it is water in which meal of parched grain (*saktu*) has been stirred. Some fruit juice (grapes, pomegranate, dates, etc.) may be added, also honey or sugar. See Med. Dict. For another kind of *tarpana* for external application, see Part I, v. 56.

(III)

(601*b* and 602*a*.) [202](*a*) Cold plasters *may be used*, or (*b*) cold *draughts of* broth of game or of the juice of the drugs of the Madhura-class [203]; (602*a*) or (*c*) poultices may be applied to the head, made of emblic myrobalan, pomegranates, tamarinds, and citrons.

(Six) Formulae for the Relief of Morbid Secretion of Urine,
(in 5) śloka (and 1 pâda).

(I)

(603.) [204](*a*) Any one who suffers from morbid secretion of urine, should drink a decoction of deodar, the three myrobalans[12], and Musta (*Cyperus rotundus*); or (*b*) he may take a draught of turmeric, *made* with the juice of emblic myrobalans mixed with honey.

(II)

(604.) [205] (*a*) In every kind of morbid secretion of urine a draught may be taken of turmeric with the juice of emblic myrobalans; or (*b*) a cooling draught of honey with (powdered parched) barley macerated in the urine of cows.

(III)

(605.) [206] Porridge made of barley, spirits of sugar-cane, flesh or broth of wild animals, the three myrobalans [12], and honey, with the exclusion of anything astringent, bitter, or acrid, are remedies for morbid secretion of urine.

(IV)

(606.) [19] Decoctions made of turmeric, nim, Darbha (*Imperata cylindrica*), ginger, Kakubha (*Terminalia Arjuna*) with milk[207], and Chavyajâ (*Scindapsus officinalis*), also

[202] There is no formula like this elsewhere. Compare, however, Ch., VI, 24 [220] (vv. 28, 30, 32, 34), AH., IV, 6 [149] (v. 63, 69), and similar directions.

[203] The Madhura-class is the same as the Jîvaniya-class, for which *see ante*, note 106.

[204] This formula occurs, in a practically identical form, in Ch., VI, 6 [80] (v. 24). The only exception is that the latter reads *dâruṇa sveduharah, i.e.*, 'Dârvî (Indian barberry) and deodar, thus making four ingredients instead of three. Both AH., IV, 12 [102] (vv. 55b, 6a,) and SY., XXXV, 175 [30], V., XXXVI [61] (v. 57*a* and *v.* 58b) give the formula in two different recensions which, however, agree in prescribing fouringredients, including Indian barberry and deodar. S., IV, 11 [45] (§ 4) also, in a fourth recension, prescribes four ingredients, but substitutes *Vitâlâ* (Citrullus Colocynthis) for *Dârvî* (Indian barberry). On the other hand, Chakradatta gives both versions, with three ingredients as well as with four: in XXXV, 11 [67] it gives our formula, in a fifth recension, with its three ingredients (deodar, the three myrobalans and Musta), while in XXXV, 135 [67] it gives the first part of our formula (identical with the Vangasêna recension) with four ingredients, adding Indian barberry or Dârvî to the other three. There can hardly be a doubt but that the shorter form of the formula, as given in our Manuscript, is the original, and that *Surâkara-dâru* was afterwards expanded into *Surâkara* and *Dârvî*. In fact, the old Nepal MS. of Charaka reads *Surâkara-dâru*, not *Dârvîka Surâkaram*.

[205] There is no formula like this anywhere else. With regard to the second part, however, may be compared the directions in Ch., VI, 6 [80] (v. 22), V., XXXVI [61] (v. 62a), and AH., IV, 12 [102] (v. 106).

[206] This formula is not found elsewhere; though its substance is contained in the directions given in Ch., VI, 6 [80] (vv. 17-20), S., IV, 11 [45] (§ 2, 3, 7). V., XXXVI [61] (vv. 41, 42), AH., IV, 12 [102] (vv. 10-13), SY., XXXV, 2 [20], Chi., XXXV, 2 [20]. There is, however, a curious discrepancy; in our Manuscript astringent, bitter and acrid drugs are excluded, while in all the other works *tiktaka-âdâna* or 'bitter' drugs (of the *tiktâ-gana*, such as *Patôla* of Trichosanthes dioica), and in Suśruta, also *kashâya* or 'astringent drugs' (such as *Vata-kashâya* or sprouts of the Ficus bengalensis) are expressly prescribed. There are, however, here discrepancies in these works themselves; *e.g.*, Suśruta prescribes the flesh of *daśapa* of 'marsh-animals' (such as the buffalo), while Vangasêna expressly forbids it.

[207] The phrase *ârdra-kshîra-kâkubha* is puzzling; for *ârdra* means fresh, and the proper word for ginger is *śrêshtaka*; *kâkubha* means made of *kakubha*, and apparently indicates a decoction of *kakubha*; and as the latter is recommended to be used with milk (see Phar. Ind., vol. II, p. 11), the phrase means "milk with a decoction of Terminalia Arjuna"; but one would rather expect *kâkubha-kshîra*. Perhaps there is some textual error

of Kushṭha (*Saussurea Lappa*), Śyâmâka (*Panicum frumentaceum*)[208], Pâṭhâ (*Stephania hernandifolia*), and cardamoms *are beneficial* to sufferers from morbid secretion of urine due to *vitiated* phlegm.

(V)

(607.) [209] In a case of morbid secretion of urine due to *vitiated* bile, decoctions made of Sallakî (*Boswellia serrata*), liquorice, emblic myrobalan, Śvadaṁshṭrâ (*Tribulus terrestris*), Khadira (*Acacia Catechu*), various kinds of urine, Kaṭabhî (*Achyranthes aspera*)[210], milk, butter-milk, oil, and medicated liquors[211] are beneficial.

(VI)

(608*a*.) [212]In all cases of morbid secretion of urine the patient may use a linctus made of the Tiktaka[213] powder with honey.

(Four Formulae) for the Treatment of Erysipelas,

in 5 ślôka and 1 pâda.

(I)

(608*b* and 609.) [214]The first remedy to be used in the case of erysipelas is bloodletting, (609) purgatives, emetics, styptics made of cooling substances, dieting with bitter herbs, and *applying* plasters made of lentils or the common chickpea ground with milk.

Nineteenth Leaf : Obverse.

(II)

(610 and 611.) [215]Plasters and douches are also recommended, made with . . . . . Śâdvala (*Cynodon dactylon*), Vîrâ (*Desmodium gangeticum*), liquorice, madder, Vêtasa (*Calamus Rotang*), blue lotus, Kêsara (*Mesua ferrea*), (611) Jîvanîya (*Dendrobium multicaule*), Palâśa (*Butea frondosa*), and . . . . . , ground in clarified butter, water, or milk.

(III)

. . .

(612.) [216]A decoction made of turpeth-root, the three myrobalans[11], nim, ... , Pilu (*Salvadora persica*), and ginger, and mixed with treacle, is a cure for erysipelas and fever.

[208] *Śyâmaîka* I take to be merely a various or perhaps wrongly spelled, form of *Śyâmâka*.

Kaṭabhî is called also *Kinihî* (see Mol. Dict.). There are two varieties: black (*kṛishṇa*) and white (*śveta*). The latter is the same as *Apâmârga*, and of it there are, again, two varieties: large (*mahâ*) and small (*kshudra*). The latter is a remedy for *mêha*, urinary diseases; see Phar. Ind., III. 136; "European physicians agree as to its value in dropsical affections."

[209] The Tiktaka powder will be found, *ante* verses 56-58*a*.

[210] The substance of this formula is found in Ch., VI, 11 [47] (vv. 43, 44, 48); also SY., LIV, 1 [203], V., LVIII [201] (v. 26), Chd., LIII, 1 [202]; also AH., IV, 18 [170] (v. 1).

[211] This formula is not found elsewhere; but there are numerous similar formulae for the preparation of plasters and douches in all medical works; *e.g.*, Ch., VI, 11, pages 578 and 577.

[212] There is no formula exactly like this elsewhere; but compare Ch., VI, 11 [47] (v. 65), SY., LIV, 3*a* [206], Chd. LIII, 3*a* [203], V., LVIII [201] (v. 28).

(IV)

(613.) [313] The Mahâtikta clarified butter[314], likewise the ingredients of the Tiktaka powder[315], boiled in clarified butter, may be taken as a draught for the cure of erysipelas and fever.

(Three Formulae for the Cure of Morbid Pallor and Jaundice.)

(I)

(614.) [316]In the case of jaundice and morbid pallor, if the patient is feverish, he should drink of the decoction first mentioned in the preceding *formula*[313], or of turmeric mixed with cow's urine, or of the rind of pomegranate together with both the latter.

(II)

(615 and 616*a*.) [317]Take one prastha[3] each of long pepper and raisins, and boil them in one drôṇa[5] *of water* with the juice of emblic myrobalans, half a hundred pala[3] of sugar, liquorice, ginger, bamboo-manna, and Katphala (*Myrica sapida*). (616*a*) Then when it is cold, mix *in it* one prastha[3] of honey, and drink of it half a pala *at a time*.[317]

(III)

(616*b* and 617.) [318] (*a*) One who suffers from jaundice and morbid pallor may make use of long pepper; (617) or (*b*) of the Mustâdya *powder*[313]; or (*c*) of a milky enema[256], or (*d*) of barley-dishes, game and honey. (*e*) He may also take the Ayôrajiya *powder*[316], and (*f*) *generally* adopt the treatments prescribed in the case of fever due to *vitiated* bile.

[313] There is no formula like this elsewhere; but both, Ch., VI. 11 [42] (v. 61) and AH., IV. 18 [42] (vv. 9, 22), also prescribe the Mahâtiktaka clarified butter.

[314] The Mahâtikta clarified butter will be found, *ante*, verses 137-143.

[315] The reference is to the Mahâtiktaka clarified butter. As this contains all the ingredients of the Mûrvâdya clarified butter it is possible that *pûrvâdya* in the original text may be a mere clerical error for *mûrvâdya*. A slight difficulty in either interpretation is that the preparation is there called a decoction (*kashâya*), not a clarified butter (*ghṛita*). For the *Mûrvâdya* clarified butter, see SV., VIII. 19, 20 [39], V., VII. 20, 31 [98]. It may be noted, that in the third formula (v. 617) two other powders are similarly quoted, the *Ayôrajiya* and the *Mustâdya*. The former will be found, *ante*, vv. 43-55, and the latter, though under the name *Tiktaka* powder, *ante*, vv. 56-58*a*. The *Tiktaka* powder commences with *Musta*, and may, therefore, also be called *Mustâdya*. The coincidence of *Mustâdya* and *Mûrvâdya* with *Tiktaka* or *Mahâtiktaka* is noteworthy. There is also a *Tiktaka* clarified butter (see *ante*, vv. 133-136) which practically agrees with the *Mûrvâdya*, except that it substitutes *Nimba* for *Mûrvâ*. Finally it may be noted that, in all three formulae of the *Tiktaka* or *Mustâdya* powder, the *Ayôrajiya* powder, and the *Mahâtiktaka* (or *Mûrvâdya*) clarified butter, morbid pallor (*pâṇḍu-rôga*) and jaundice (*kâmalâ*) are mentioned among the diseases, for which they are intended; see, *e.g.*, AH., IV, 16 (v. 1). There is a *Mustâdya* set of drugs given in S., I, 38 [10] (§ 40), but this is not likely to be referred to here.

[316] This formula, in another recension, making it to be a formula for a linctus, is only found in AH., IV, 16 [42] (vv. 220-21). It reads, however, *dvi-palaṁ* for *katphalaṁ*.

[317] The Ashṭâṅga Hṛidaya (see note 316) reads *tilâs madhûprastha-guḍa-ḥîkṣât*, which clearly treats *tilâs* and *guḍa* as acc. plur., and so does the commentary of Arupadatta. But as the formula speaks of a very large quantity (3 prastha and one drôṇa) of which only half a pala is to be taken at a time, the abl. sing., *tilât* (*tila* is due to sandhi) and *guḍât*, as our original text has it, is undoubtedly correct. Accordingly note 150 on p. 56 should be cancelled. Moreover, as acc. plur. the two words would be masculine, which would hardly agree with the preceding nouns.

THE FIFTH CHAPTER: FORMULAE FOR ENEMAS.

(I) The AŚVAGANDHĀ Enema of the Aśvins,[318]

in 7 ślôka and 1 pâda.

(618—625*a*.) Furthermore I shall explain a preparation for the promotion of strength and *healthy* colour, by which the muscles are made to grow and strength is produced. (619) *Take* twenty-five palas[3] of the roots of Aśvagandhâ (*Withania somnifera*), and cutting them into pieces, let them be boiled in a cooking-pot. (620) When the liquid is found to be reduced to the fourth part *of the original quantity*, take it off *the fire*, and having strained it, decant it into an iron-vessel. (621) Into this decoction a wise physician should introduce the *following* drugs: all those of the Jîvaniya-class[106], powdered sugar, (622), one prasrita[4] each of honey, clarified butter, and powdered long pepper, and a little salt.[2] He should then stir the whole well with a ladle, (623) and having poured it into a flawless bladder, he should proceed to administer it as an enema either once or twice or three times. (624) When the injection has retroverted, a douche of warm water should be applied, after which a meal of cooked red-rice may be taken, (625*a*) with milk or with the broth of game.

(II) Another AŚVAGANDHĀ Enema,[319]

in 1½ ślôka and 1 pâda.

(625*b* and 626.) (*a*) *The Aśvagandhâ roots* boiled in clarified butter with liquorice, may also be used as an oily enema[142], (626) or (*b*) again an oily enema may be made *of them* by boiling *them* in clarified butter with the Jîvaniya-class[106] of drugs. *The application of* these causes the muscles to grow, and prevents emaciation.

(III) The RÂSNÂDYA Enema,[319]

in 5 ślôka and 1 pâda.

(627—632*a*.) Take * Râsnâ (*Vanda Roxburghii*), Agnimantha (*Premna integrifolia*), Pâṭali (*Stereospermum suaveolens*), Syônâka (*Oroxylum indicum*), Kârshmarya (*Gmelina arborea*), and Nidigdhikâ (*Solanum xanthocarpum*), together with Râjavṛiksha (*Cassia Fistula*), Śâlaparṇî (*Desmodium gangeticum*), Pṛiśniparṇî (*Uraria lagopodioides*), and Vṛihatî (*Solanum indicum*). (628) The roots of these plants should always be taken, and the root of the castor-plant may be added. Two palas[3] is the quantity to be taken of each of them, and they must be decocted in one drôṇa[2] of water. (629) When the

[318] This and the following formulae I have not been able to trace elsewhere. The directions respecting the after-treatment of the patient (in verse 624), however, are found substantially alike in most medical works; *e.g.*, in Ch., VIII, 3 [278] (v. 516), S., IV, 37 [278] (v. 100*b*, 110*a*), AH., I, 19 [126] (v. 50*b*, 51*a*).

[319] I have not been able to trace this formula elsewhere. In Ch., VIII, 10 [319] (vv. 5, 6), however, there are three sets of ingredients given for three enemas to be used in the case of bilious diseases. The first of these (*ibid.*, verse 5) substantially agrees with the set of ingredients in our formula (v. 627). Both give ten ingredients, but Charaka substitutes *Vilva* for *Rôhinî* and omits *Râjavṛiksha*. The same series of drugs enters into the formation of many formulae, *e.g.*, of the Chyavana-prâśa clarified butter; see *ante*, verse 188; also Ch., VI, 1 [412] (v. 40), 1 [413] (v. 59), I, 2 [2] (v. 9), 4 [16] (§ 63). It is, in fact, practically the well-known *daśa-mûla* series; only here *Rôhinî* is substituted for *Vilva*, and *Râjavṛiksha for Gôkshurî*; while *Eraṇḍa* which, is here added as an appendix, is in Ch., VIII, 10 (v. 17) substituted for *Gokshurî* under the name *Vardhamânaka*.

decoction is reduced to one quarter, pastes should be thrown in of finely powdered Kuṣṭha (*Saussurea Lappa*), liquorice, and the yellow kind of mustard[220] (630) Let also

Nineteenth Leaf: Reverse.

pastes be added of . . . . . and of liquorice. This preparation promotes health, good spirits, *good* digestion, vigour, strength, and *long* life, and gives virility to the exhausted. (631) It is beneficial in the case of nervous diseases, ... loss of appetite, barrenness, and any extensive or inveterate disorder; (632*a*) of morbid secretion of urine, itching, wounds, and *other* defects of the womb; of morbid pallor[8], piles, and chronic diarrhœa.

(IV) The HAVUṢHÂ Enema,[221]

in 5 ślôka.

(633—637.) The Havushâ enema which the royal sage, the self-controlled Suprabha, has composed in Âryâ-verses,—explain to me that *preparation*, the most enjoyable with comfort! (634) Make a mixture of habush, castor-plant seeds[222], carbonate of potash, water, and rock-salt of the *following* quantities[222] respectively, a prasṛita,[9] a prasṛita, a prastha,[6] a prastha, and half a pala[5]; (635) but the salt should be withheld[222] till *all* the water is evaporated; when the boiling is finished, strain *the mixture*, and stir it up with the salt in clarified butter. (636) To men who care above all for comfort, whose youthful vigour is departed, who suffer of constipation of the fæces, this enema should be administered all at once in a tepid state. (637) Food in moderation should be taken at proper times, and *all* indulgence avoided, but no avoidance *of any particular food* is needed. It is a *preparation* which promotes good spirits, digestion, vigour, strength, virile power and long life.

(V) The MADHUTAILÔDAKA or YAVANA Enema,[223]

in 3 ślôka.

(638—640.) Take equal quantities of honey and oil, and of tepid water a quantity equal to both, and *add* one karsha[5] of dill and half a karsha of rock-salt[25]. (639) This

[220] This is the well-known "Indian mustard" (*Brassica juncea*), the seeds of which have a light reddish brown colour, and when powdered are of a very bright rich yellow. See Phar. Ind., I, p. 135.

[221] I have not been able to trace this formula elsewhere. Ch., VIII, 8[100] (v. 5) has a formula called *Havushâdyavirêka*, but with the exception of habush and rock-salt, all ingredients differ as well as the quantities. Another recension of Charaka's formula will be found in V., LXXVIII[107] (v. 176) and Śâ., III, 6[108] (v. 33), where it is called the "Yâpana" enema; see below note 324, S., IV, 38[101] (v. 91), V., LXXVIII[103] (v. 152), Śâ. III, 6[108] (v. 18) also have a formula which contains habush, castor-plant-seeds and rock-salt, in addition to three different ingredients.

[222] The reading *rukshana* is uncertain; nor is the word given in any dictionary. I take it to mean the castor-plant, as it is a synonym of *vardhamânaka*. The roots and seeds of the castor-plant are favorite ingredients in enemas.—The reading of the quantities is rather obscure; there seem to be six quantities, while there are only five drugs. Instead of the last *prastha*, *sama* ward meaning respectively (*sapa-pâravatah*) seems to be wanted. It may be a false reading; or perhaps it has the unusual meaning of progressive series. There is probably another clerical error in the formula. Instead of *upêta*, probably the correct reading is *upêta*, or ingredient. It makes no difference in the meaning, which is that "the ingredient (*upêta*), salt (*lavana*) is (or should be) withheld (*krita*)."

[223] The first name means 'the enema made of honey, oil and water.' On *yavana*, see note 324. The formula is not found elsewhere. On the other hand, a *madhu-tailika*, or 'an enema made of honey and oil' only is found in most medical works; *e.g.*, in S., IV, 38[101] (vv. 98, 99), V., LXXVIII[107] (vv. 168, 169 and vv. 171-173), AH., V, 4[101] (vv. 27*b*, 28). This formula, however, may have been in the missing portion of this chapter.

is a particularly excellent enema, which promotes the appetite, the muscular tone, and the bulk and strength of the body, and is designated a yavana (or 'warding off'). (640) Enjoying a woman, travelling, athletic exercise, and *the use of* cold water may be indulged in at pleasure, when this enema has been administered.

(VI) (The SARVASÂDHAKA Enema.[139])

(641.) Instead of oil clarified butter may be taken, and milk instead of water. The rest remains the same as before. This is the Sarva-sâdhaka (or 'universal-cure') enema.

(VI) The TAILÂDYA or YÂVANA Enema,[224]

in 3 ślôka.

(642—644.) Take equal quantities of honey and oil, and of * Râsnâ (*Vanda Roxburghii*) a quantity equal to both; and *add* one karsha[2] each of dill and of long pepper, (643) also a paste of liquorice, and half a karsha of rock-salt.[58] This enema promotes the muscular tone, bodily strength and bulk, and the appetite. (644) It causes no trouble and wards off *diseases*; it is an aphrodisiac, and imparts vigour and strength. It cures severe pains caused by obstruction of fæces and urine, abdominal tumours, morbid secretion of urine, hæmorrhoids, and scrotal enlargements.[140]

(VII) (The PICHCHHÂ Enema.[225])

(645—649.) Having wrapped up fresh buds of the Sâlmali (*Bombax Malabaricum*) in fresh Kuśa-grass (*Poa cynosuroides*), and plastered them over with black earth[226], roast them in a fire of cow-dung. (646) When the earth is seen to have become thoroughly baked, take out the Śâlmali flowers, and having pounded them in a mortar,[226] stir up in boiling milk (647) a quantity *of the powder*, equal to a mushți.[3] Then having greased this preparation[226] moderately with oil and clarified butter, and mixed it with a paste of liquorice, (648) inject the enema into the body after greasing it, and when it has retroverted, (the patient should bathe and then partake of milk or the broth of game. (649) This is an enema which, acting as a purgative and sustaining remedy, quickly overcomes bilious diarrhœa, fever, inflammation, abdominal tumours, indigestion, and chronic diarrhœa, even when *these diseases* have assumed a very severe form).

[224] I cannot trace this formula elsewhere. The name means 'the enema made of oil and other things.' In verse 644 the enema is said to be a *yôgana* or 'warding-off' agent. Most medical works give an enema under the name of *yôgana*, of which *yôgana* might be a prakritized form. The similarity of the names suggests an identity, though the terms have appropriate meanings of their own; for *yôgana* means 'alleviating,' while *yôgana* or *yavana* (as spelled in v. 639) means 'warding-off.' A *yôgana* formula is given in V., LXXVIII [207] (v. 176), Śâ., III. 6 [33] (v. 33), BhP., I. 2 [13], and AH., V. 4 [408] (v. 30); another in AH., V. 4 [408] (v. 29). On *yôgana* as a *paryâya-śabda* or 'synonym' of *nirûha* or *âsthâpana*, see S., IV. 35 [160] (§12). All these formulæ are of a very different composition from the *yavana* and *yôgana* formulæ given in our Manuscript.

[225] The name of this formula was on the missing twentieth leaf. It is supplied from the parallel recensions. *Pichchhâ* is a synonym of *Sâlmali*, from which, as the initial ingredient the formula is named; see *ante*, note 29. As, however, the Charaka recension defines the quantity of milk (v. 646) to be a *prastha*, it is possible that this preparation may be the *kshîra-vasti*, or milky enema referred to in verse 583. The concluding portion, in brackets, *i.e.*, verses 648b and 649, is supplied from the very similar recension in Ch., VI, 10 [460] (vv. 70-74), where the text runs as follows: *sañśrit bhakshita yogavâh śîtoṣhṇâbhi rasâna vâ* ‖ [648b] ‖ *pittâtisâra-jvara-śôtha-gulma-âmavâtâdira-grahaṇî-pradûshân | jayat yavaya tîkshṇa-ati-prasṛiddhân-virôchan-âsthâpanayôś-cha vastiḥ* ‖ 649 ‖ These verses must have commenced the obverse side of the missing twentieth leaf. A third very similar recension is given in AH., IV., 9 [93] (vv. 72b-75). A fourth, rather different recension, occurs in V., II [87] (vv. 128-130), and a fifth, in S., VI, 40 [70] (vv. 134-136).

[226] For *samdyôjya*, having prepared, the recension in Ch., VI, 10 (v. 71b.) reads *dpôtya*, having pounded; and for *kritvâ tan-mâlam* it reads *prasthê tato'pâtam*. The latter reading yields the sense: "stir up a mushți of the powder in a prastha (of boiling milk); then, having strained it, and greased it moderately, *etc.*" The term *mâla*, in this connexion, is peculiar; I have taken it to mean "basis" (of the preparation); but probably the text is corrupt.

Twenty-second Leaf: Obverse.

(THE SIXTH CHAPTER: FORMULAE FOR TONICS.[337])

(Prose 715.)[338] Counselling *with reference to the acquisition of health and strength*, the blessed Âtréya said: "caution in diet is of three-fold, *but* abstinence from sexual intercourse is of four-fold value."

(I) (The PIPPALÎ-VARDHAMÂNA Tonic.[339])

(Verses 716—737*a*.) What are the virtues, the effect,[340] and the power of the Pippalî-vardhamâna (or 'progressively increasing long-pepper') *tonic*? That I shall *now* set forth in due order out of desire for the welfare of the people. (717) Having taken a draught of this ambrosia, no man ever repents of it; for it leads to the attainment of one's object with the certainty of an emblic myrobalan on the *palm of the* hand[341]. (718) Hence one who is anxious to promote prosperity, robust health, procreation, and intelligence, should administer this auspicious and life-prolonging alterative tonic. (719) Having taken a draught of oil or clarified butter medicated with the drugs of the Jîvanîya-class[342], and *thereupon* vomited and purged, and having thus been thoroughly cleansed, one may then, at the proper time, on an auspicious day, commence *the treatment*. (720) When the moon is in conjunction with *any of the asterisms* Punarvasu, Pushya,[343] Śravaṇa, Śravishṭhâ, the three Uttara[344], and Hasta, (721) after having fasted, washed one's head, put on clean clothes, repressed one's sensuous desires,

[337] *Rasâyana* is commonly translated by 'tonic' or 'alterative tonic' medicine. See Mat. Med., p. 6. I have adopted the term, though it is not an exact equivalent of *rasâyana*. According to Ch., VI, 1[405] (v. 2) remedial agents (*bhêshaja*) are of two kinds: 1, *swasthasya ójas-kara* or 'promoting the vital power of the healthy' (*see ante*, Part I, note 12), and 2, *âturasya rôga-nut* or 'curing the diseases of the suffering.' The former has two sub-divisions: a, *rasâyana* or 'tonics,' and b, *vrishya* or 'aphrodisiacs.' Hence there are three great classes of medicines: 1, *rasâyana*, 2, *vrishya*, 3, *rôganut*. See *infra*, verse 951. The *vrishya* or 'aphrodisiacs' are treated of in the eighth chapter. A *rasâyana* is described thus in Charaka.: "It serves to promote length of life, memory, intellect, youthful vigour, high spirits, healthy colour, good voice, high-mindedness, strength of the body and the senses, propriety of speech, polite manners, and handsome appearance. It is called *rasâyana*, because it has a beneficial effect on *rasa* or 'chyle' and the other elements of the body." The same description is given in AH., VI, 39[345] (vv. 1, 2). Śâ., I, 4[11] (v. 13) defines it shortly as *jarâ-vyâdhi-nâśanam* or 'that which prevents decay and cures disease.' The word is derived from *rasa* or 'chyle,' and *ayana* or 'producing.' On *rasa* and the seven 'elements,' see *ante*, Part I, note 34.

[338] This passage appears to be in prose; at least I am not able to discover in the existing fragment any indication of scansion. It is probably the end of a longer (prose) passage, the initial part of which is lost with the 21st leaf.

[339] This formula is not found in any other medical work. In a much simpler and more convenient form the graduated treatment with long pepper, prescribed in it, is found in the formula, given below, in verses 749-752, and this latter formula is met with in most medical works; see the references in note 343. In the present case, the patient is to take one long pepper on the first day, and then for one hundred consecutive days the dose is to be increased by one pepper every day, so that on the hundredth day the patient will take one hundred at one dose. Then the dose is to be gradually reduced, by one pepper daily, till it is finally omitted. After every dose milk is to be taken, and at the end of the whole course, a milk-diet is to be observed for one week, for another, a diet of pulse and rice, and for a third week, of broth and other things. The whole course of treatment thus occupies 100+100+21, or 221 days. During the actual continuance of the treatment the patient is to stop inside his house and avoid exposure to draughts. The inconveniences of this treatment would seem to have led to its disuse.

[340] *Karma* might also mean 'mode of application,' 'treatment with'; see verse 733.

[341] This is a well-known proverbial saying to indicate absolute certainty: the clearness or certainty of a thing is as perfect as the clearness with which an emblic myrobalan can be seen, when it is placed on the open palm. See Rockhill's Life of the Buddha, p. 197, for an example from the Anguttaraliya Sûtra. Compare also the German: es liegt auf der (flachen) hand.

[342] The three 'Uttara' are the Bhâdrapadâ, Phalgunî and Ashâḍhâ asterisms, of each of which there is a *pûrva* or 'earlier,' and *uttara* or 'later.' The eight nakshatras or lunar 'asterisms' here mentioned are the 6th, 6th, 21st, 22nd, 10th, 19th, 25th, and 11th, according to the older system of reckoning.

and worshipped the Dévatás and Bráhmans, one should eat one long pepper.[233] (722) Afterwards one should drink some milk from a cow or goat; and when this is digested, one may eat rice cooked with milk. (723) In this way a man should go on eating *long pepper*, increasing *the number* regularly *by one* each day, until the hundred is completed as well as the decrescent course[234]. (724) Then at the end of the decrescent course one should, as a rule, for seven nights (*i.e.*, one week) make one's meal, severally, of rice cooked with milk, and then of rice cooked with Mudga (*Phaseolus Mungo*).[235] (725) In the third period of seven nights he may then partake of the broth of game and the juice of plants of the Madhura class.[235] Eaten (as a meal) and drunk as a weak decoction, which has been cooled after boiling, this is beneficial. (726) He should always stop in a place protected from draught, and avoid everything unsuitable. He may then in due order add to his diet emblic myrobalans, and, for something sour, (727) the sour juice of tamarind or pomegranates; he should also regularly take a bath. By this treatment a person will speedily gain robust health; (723) a woman will take conception, and even a barren woman will become fruitful. By it leucodermic diseases, phthisis, malignant jaundice, (729) epilepsy, madness, and intermittent fever[235] are relieved; and by a frequent application of it wrinkles and

Twenty-second Leaf: Reverse.

grey hair are removed. (730) It is an agent for promoting colour, good spirits and strength, and most excellent for quickening the digestive faculty; it is auspicious in removing diseases of the skin and creating sound health; (731) *and* it serves to restore the loss of sexual power and of sensitivity. The long peppers are auspicious *in their action* on the body, acrid, sweet, (732) oleaginous, possessed of cooling power and of far-reaching virtues. On account of their acrid nature they are remedial to *disordered* phlegm, on account of their oleaginous nature, beneficial to *disordered* air, (733) and on account of their cool nature, relieving to *disordered* bile; they may *thus* be applied in every kind of treatment. This foregoing prescription may be administered with three or even with five *long peppers for a dose* (734) eight also may be taken or ten or any other number according to the strength and age *of the patient; but* in every case milk must be used as an after-drink, and milk must also be a regular item of the diet. (735) The directions *for its use* have now been explained and its blessings have now been announced. Hence carefully observing the directions a man should, in the order set forth, (736) make use of this prescription of Pippalí-Varamáṇa (or 'progressively increasing long peppers'), composed by the

[233] In the Atharva Veda, VI, 109, verses 1-3, *pippalí* is recommended as a specific against rheumatic diseases (*vátaghnîbhih*): "Long pepper is a remedy for one who suffers from convulsions (*kshipta-bhéshají*), also a remedy for one who suffers from piercing pains. The gods have arranged this (saying) 'this is enough for (preserving) life.' The Asuras dug thee into the ground; the Dévas cast thee up again (to be) a remedy for one who suffers from rheumatism (*vátakrityasya*), also a remedy for one who suffers from convulsions or distortions (*kshiptasya*)." Sáyana rightly explains *vátakrita* as *vâta-vyádhi*, and *kshipta* as *kshipta-vâta*. Both are gouty or rheumatic diseases. See *asiti*, note 178.

[234] The reading *daśa-navâhe* or 'ten years,' is obviously corrupt. The true reading *avakarshas* (or *apakarshas*) 'decrescent course' (*i.e.*, the course of lessening the dose by one long pepper every day) is suggested by the context.

[235] The word *rasa*, when used without any qualification means the 'juice' of flesh, or 'broth.' Thus the commentary to AH., I. 16[108] (v. 196) quotes another medical authority to this effect: *rasa ity-uchyate-'dhan jângô mâṁsa-bhavô rasa iti tantr-ântar-âtê*, i.e., "another (medical) text-book states that 'rasa' when not further specified is to be understood to mean the juice of flesh." In the preceding verse *rasa* is qualified by *mudga*; and *mudga-rasa-ôdana* is the well-known Indian dish *dâl-bhât* made with *mûng-kê-dâl*.

[236] *Vishama-âyatah* of the original text must be a clerical error for *vishamash gatah*.

two Aśvins for the purpose of promoting health, prosperity, strength, and long life. (737*a*) Its *directions* should be unmurmuringly carried out, so that a successful result may be obtained.

(II) (A KÂKAMÂCHÎ Prescription.[737])

(737*b*—741.) Let a wise man gather garden-nightshade of recent growth, with its roots, leaves, flowers and fruit, (738) and let him boil one quarter of a tulâ[2] of it, finely powdered, in a drôṇa of water. (739) When *the decoction* is reduced to one quarter *of its original quantity*, it should be boiled again in one prastha[3] of oil and four times as much (i.e., four prastha) of milk, together with pastes made of the following *drugs*: (740) Prapaunḍarîka[741], liquorice, roots of *Râsnâ (*Vanda Roxburghii*), Śâtâvarî (*Asparagus racemosus*), baberang, dill, and cowhage-fruits. (741) This oil, when *administered* as a liniment, draught, errhine, or enema, drives away all the eighty diseases[742] due to *derangements of* the air.

(III)

(742 and 743.) [738](*a*) The fresh juice of Maṇḍûkaparṇî (*Hydrocotyle asiatica*) may be administered, or (*b*) powder of liquorice with milk, also (*c*) the juice of Guḍûchî (*Tinospora cordifolia*) with its roots and flowers, as agents for promoting *length of* life and curing diseases. (743) These drugs have tonic properties, increasing *the patient's* strength, digestion, *healthy* colour and memory, and quickening the intellect. (*d*) Of Śaṅkhapushpî (*Canscora decussata*), however, a paste must be used:

Twenty-third Leaf: Obverse.

as a quickener of the intellect this Śaṅkhapushpî plant is particularly useful.

(IV)

(744.) [739]A man who drinks liquorice mixed with clarified butter and honey, following it up with milk, and abstaining from *intercourse with* women, will live for a hundred years.

(V) A Prescription of Long Pepper, in 5 ślôka.

(745—748.) [740]Any one who is desirous of the benefits of an alterative tonic, should

[737] Another Kâkamâchî prescription will be found below in verses 759-768*a*. Neither of them can be traced in any other medical work. The Kâkamâchî plant, however, is expressly described in AH., I, 6[83] (v. 72) to have the property of a tonic agent.

[738] This formula is found, in a practically identical recension, in Ch., VI, 1[423] (vv. 130, 131), V., LXXII[102] (vv. 375, 376), AH., VI, 39[105] (vv. 44, 45), Chd., LXX, 8[104], BhP., III[27]. The only noticeable difference is that in all these works the quarter-verse *kalkah prayôjyah khalu taṅkhapushpyâḥ* is placed before the quarter-verse *dyosh-pradâya-dinaya-ashtasâni*. Consequently in the commentaries to Charaka, Aṣhṭâṅga Hṛidaya and Bhâva Prakâśa, the phrase *sa-mâkṣhikyâḥ* is constructed with *taṅkhapushpyâḥ*; while in our Manuscript it manifestly belongs to *guḍûchyâḥ*, and so it is also connected in Śivadâsa's commentary to Chakradatta.—The formula is called, in Charaka, *sahâsh-rasâyanâni* or 'tonic medicines for the intellect,' in the plural number, because it gives four alternatives: 1, fresh juice of *Maṇḍûkaparṇî*, 2, powder of liquorice, 3, juice of *Guḍûchî*, 4, paste of *Śaṅkha-ushpî*.—S., IV, 28[113] (§ 2) gives only a formula about *Maṇḍûkaparṇî*.

[739] With this formula compare AH., VI, 39[105] (v. 55).

[740] This formula is found, in a practically identical recension, in Ch., VI, 1[423] (vv. 132-135), Chd., LXX, 6, 7[104] and AH., VI, 39[105] (vv. 96-98*a*). It is, however, divided into two separate formulae, viz., verse 745 being one, and vv. 746-748, the other. Only the latter of these two separate formulae is given in V., LXXII[102] (vv. 382-384). There are, also, two points of difference: 1, all these works read *samâm ślôkâm* or 'one year,' for our *ashaus-ślôkam* or 'one month,' which, however, may be merely a clerical error, (for another error, see next note); 2, they read *madhu-samâmitâḥ*, i.e., 'mixed with honey' or *madhu-sarpirbhyâm*; i.e., 'with honey and clarified butter,' for our *ghṛita-samâmitâḥ*, 'mixed with clarified butter'.—This formula is not a *vardhamâna*, or a graduated one. The idea of graduation, in fact, is excluded by the long period of a year. The commentaries on Charaka, etc., do not explain it as a graduated formula.

take five, or eight, or seven, or ten, long peppers *daily* for one month; (746) or he may take three long peppers every forenoon before his meal, macerated in the ashes of Kiṁśuka (*Butea frondosa*), and fried in clarified butter, (747) and to be administered together with clarified butter. This will serve to cure cough, consumption, emaciation[341], asthma, hiccough, affections of the throat, (748) hæmorrhoids, chronic diarrhœa, morbid pallor[a], intermittent fever, nasal catarrh, loss of voice, abdominal tumours, and persistent low fever.[342]

(VI) Another Prescription of Long Pepper,[343]

or the Pippalī Sahasra.

(749—752.) Let the patient take long peppers together with milk for ten days, increasing his dose by regular increments of ten peppers each day, and similarly let

[341] *Kṣaya* and *śoṣa* are two of the four synonyms of consumption: the other two are *rāja-yakṣmaṇa*, and *rāja-vṛddhi*; see AH., III. 5. v. 15. In our verse the two are distinguished: *śoṣa* is emaciation, drying up, of *rasa*, chyle, see *ibid.*, I, 17. v. 17*a*; it occurs specially in the throat (*gaṭa*) and palate (*tālu*), see *ibid.*, III. 5, v. 25*b*. *Kṣaya* is consumption, wasting.

[342] The form *vāta-mūḍhakaṣa* in our Manuscript appears to be a clerical error (or perhaps a variety of spelling) for *vāta-bālāsakaṣa* as the parallel passages (see note 340) have it. *Vāta-bālāsaka*, lit. 'due to (deranged) air and phlegm' is the name of the ordinary kind of persistent low fever: see Nid., p. 24, and footnote on page 30. It is also called *jīrṇa-jvara* or 'inveterate fever,' see BhP., II, 1 [22]. In the Bengālī paraphrase to Chd., LXX, 7 [89], *vāta-vālāsaka* is constructed with *gulma* and explained to mean 'abdominal tumours caused by air and phlegm.' See also White, p. 311. If divided, *vātam-ālāsakam*, that reading might be correct, indicating two diseases, viz., *vāta*, rheumatic diseases, and *ālāsaka*, glossitis (see *ante*, v. 354.) But this alternative does not seem probable.

[343] This formula is found in the identical version, but with the name *pippalī-vardhamāna*, in Ch., VI, 1 [63], (vv. 136-140); only it inserts, after the fifth half-verse (v. 571*a*) the following verse: *tīkṣṇāgnīnāṁ hrasva-balair-jīrṇā dōṣā-ḥmayāṁ prati, daśa-paippalikāḥ kṛṣṇāḥ saṁdhāryaṇāḥ pat-prakīrtitāḥ*, i.e., 'to those of little strength they should be given in the form of a cold infusion, according as the *patient's* disease is due to this or that *deranged* humour. The strongest *forces* in that with ten peppercorns, that with six is considered of middle strength.' This verse appears to have dropped out in our Manuscript by some accident, for it is manifestly required by the symmetry of the formula, which is intended to prescribe a threefold strength of pepper with a threefold mode of administration, to a threefold class of patients.—In AS., VI, 49 [180] and AH., VI, 39 [102] (vv. 986—100) the formula is still more defective, as everything is omitted after the fifth half-verse. On the other hand, Chd., XXXVIII, 1 [67] adds the half-verse: *pañcha-paippalikāt-ch-āpi dviḥ-sapta-daśa-saṁdhāraṇāḥ*, i.e., 'there exists also a form of the vardhamānaka *prescription* with five peppercorns.' This addition appears to be based on the form which the prescription has in S., IV, 5 [48] (§14, in prose; see also VI, 39 [75], v. 194*a*), which prescribes an alternative increase by ten or by five pepper corns, but omits the variation on the mode of administration. Chakradatta's version of the formula is quoted by Śrīkaṇṭhadatta in his commentary to SY., XXXVIII, 44 [50], and it would appear to be due to Mādhava, the author of Siddhayōga. For the latter, who twice (I, 231 [24] and XXXVII, 11 [68]) names the *pippalī-vardhamāna* formula, does not actually give it in his Siddhayōga, but refers for it to a treatise on *kalpa* (*kalpa-dṛiṣṭa*), or medicinal techniques. This reference suggests that Mādhava wrote a separate work on *kalpa*, from which the commentator quoted, but which does not appear to have survived. Still another version of our formula occurs in Śā., II. 5 (vv. 3-4) and BhP., II, 1 (p. 123); and here the rate of increase is made to be 7 or 5 or 3, which seems to be connected with our formula V, though the latter does not appear to be a *vardhamāna*, or graduated formula.—Charaka and Aṣṭāṅga Hṛidaya agree with our Manuscript in giving this formula in the chapter on *rasāyana*; but Suśruta has it in the chapter on *vātavyādhi* or 'nervous diseases.' Bhāva Prakāśa in that on *jīrṇa-jvara* or 'persistent low fever,' and Chakradatta in that on *plīhōdara* or 'enlargement of the spleen.'—This formula is constructed on the same lines as the longer one, in verses 716-737*a*. The patient is to take 10 long peppers on the first day, 20 on the second day, 30 on the third day, and so on, increasing the dose by 10 peppers every day, so that on the tenth day he will take 100 long peppers, and the sum of the numbers of this progression will be 550 peppers. On the eleventh day he reduces the dose again to 90, and so on, by 10 peppers every day, till on the nineteenth day he will again take only 10 long peppers, and on the twentieth the medicine is omitted. The sum of the numbers of the whole course, progressive as well as retrogressive, thus becomes 550 + 450, or 1,000. Hence this form of the prescription is known as the 'formula of 1,000 long peppers.' If the ratio of increase is 6 peppers, the total comes to 600; and if the ratio is 3, to 300 long peppers. The latter or 'mildest' form of the prescription appears to be the one which is in use at the present day; see Mat. Med., p. 243, and Phar. Ind., III, p. 177.—One point is noteworthy as indicative of age. In our Manuscript there are two prescriptions for a graduated treatment with long pepper, one called Pippalī Vardhamāna (No. I), the other Pippalī Sahasra (No. VI). In all existing medical works there is only one such prescription given; it corresponds to the Pippalī Sahasra, but is called the Pippalī Vardhamāna. Some knowledge of the two original forms of the prescription seems, however, to have survived in AH., IV, 15 [36] (vv. 40*b*, 41*a*), where two distinct long-pepper treatments are prescribed, under the names of Pippalī Sahasra and Pippalī Vardhamāna. For the latter the commentary refers to the chapter on Rasāyana and thus identifies it with the formula which corresponds to the original Pippalī Sahasra. But its own Pippalī Sahasra is not explained or identified by the

him afterwards decrease[344] it. (750) Each time, after digestion, let him eat shashṭika[167] rice with milk and clarified butter. This tonic medicine is the Pippalî-sahasra (or 'one thousand long-peppers') formula. (751) In the form of powder, made into a paste, the peppers should be taken by strong men; those of middling strength may take them boiled. The mildest form of the prescription is that which is limited to three long peppers. (752) This long-pepper tonic has the effect of increasing the bulk, restoring the voice, lengthening life, curing enlargement of the spleen, establishing health, and sharpening the intellect.

(VII) The Nâgabalâ Prescription or the Âvalika tonic,[345] in 6 ślôka.

(753—758.) In the beginning of autumn at Pushya's[146] time the physician should take up Nâgabalâ (*Sida spinosa*) plants, and after cleaning their roots, make fine powder of them. (754) One karsha[8] of this powder he should stir up in milk, and then give it to drink; and when it is digested, *the patient* may drink milk, but should abstain from farinaceous food. (755) Gradually, he should increase the dose by one pala[3] every day for a period of seven nights (i.e., a week); and then the dose should be lessened by one pala a day, so that no molestation may be felt. (756) It is also said that *at the same time* the patient should avoid to see any woman or sûdra, or any wild animal. This tonic medicine always cures the eleven[346] troublesome symptoms of phthisis, (757) and prolongs life. In just the same manner a tonic medicine may be prepared with liquorice, (758) also with Maṇḍûkaparṇî (*Hydrocotyle asiatica*), and with ginger. This, the so-called Âvalika (or 'serial') tonic medicine, is the very best of all.

(VIII) Another Kâchamâchî Prescription.[347]

(759—768*a*.) In the auspicious month of Mârgaśira, after having cleansed one's self with emetic and the other depuratory agents[29], one should procure garden-nightshade bearing fruits and flowers. (760) Ten pala[3] of this garden-nightshade, well-cleaned, the physician should carefully and slowly boil with half as much of oil, in an iron vessel. (761) Of this *preparation* a little may be taken with one's food made of boiled shashṭika,

Twenty-third Leaf: Reverse.

rice.[167] With the plant itself one should eat moderately of shashṭika rice[167] cooked with

commentary, either here or elsewhere, so that it does not appear what its method may have been. The explanation of all this seems to be that the original Pippalî Vardhamâna formula, being found too complicated or awkward, was in later times discarded, and its name transferred to the original Pippalî Sahasra.

[344] The reading *vardhayêt* is clearly an error for *apâvṛṇêt* as given in all the parallel passages, for which see the preceding note.

[345] I have traced this formula only in AH., VI, 39[105] (vv. 54, 55), but in a much shorter recension which combines the substance of this formula with that of formula IV (*ante*, v. 744). It also occurs, though in prose, in AS., VI, 41[105].—*Nâgabalâ* is also mentioned as a specific, in S., IV, 27[32] (§7).

[346] The eleven *lakshana* or 'symptoms' of phthisis are given in Nid., p. 50, as follows: 1, dyspnœa, and 2, pains in the shoulder and sides, both owing to excess of air, 3, fever, 4, internal heat, 5, diarrhœa, 6, spitting of blood: all these due to excess of bile; 7, heaviness of the head, 8, want of appetite, 9, cough, 10, pains and rattle in the throat, and 11, aphonia: all these owing to excess of phlegm.

[347] I have not been able to trace this formula elsewhere. For another Kâkamâchî prescription, see *ante*, vv. 735*b*-741.—*Kâkamâchikâ* is a word which does not appear to occur elsewhere; it is probably a prâkritic bye-form of *kâkamâchî*, similar to *châchîla* and *kirâta*. The dictionaries explain it as "a kind of spirituous liquor," on the authority of Galanos; but this appears to be a mistake for *kâkamâdî* or *kâkamâdikâ*, which according to the Med. Dict., on the authority of Trikaṇḍaśêsha, is a kind of *madya*, or spirituous liquor. Anyhow in our formula, *kâkamâchî* cannot be a liquor, seeing that in verse 761 it is called a *śâka*, vegetable, and in verse 759 it is described as having fruits and flowers.

milk. (762) This should be followed up with a draught of water mixed with emblic myrobalans. When continued for a period of twenty-one nights (*i.e.*, three weeks) this treatment is the best. (763) To continue it for a double period of seven nights (*i.e.*, two weeks), is the middling, and to continue it for one period of seven nights (*i.e.*, one week) is the mildest way of applying this treatment. At the same time one should avoid conjugal intercourse[349], (764) nor should one indulge in sleep in the day, nor engage in violent exercise. At the end of the course of treatment, one should gradually take to dishes of broth, (765) nor should one eat over-much nor take anything unsuitable. This *treatment* will certainly restore the youth of the aged, (766) remove their wrinkles, and bring back to men the life that is passed.[349] To those also who suffer from decrease of their virile power, it will restore virility. (767) If it is practised in combination with various good treatments of different classes, it will in due course confer whatever is desired. (768*a*) This is a blessed, glorious, quickening, happy, auspicious, and excellent *prescription*.

(IX) A Tonic Oil for an Errhine.[350]

(768*b*—773*a*.) Take one aksha[a] each of each of the three myrobalans[18], and of indigo, blue lotus, (769) sulphide of antimony, roots of long pepper, and leaves of Sahachara (*Barleria cristata*), bark of the Arjuna tree (*Terminalia Arjuna*) and fruit of Pindâraka (*Vangueria spinosa*); (770) also of a decoction of the root of the jâman tree, and of earth *taken* from the roots of a jâman tree[351], Bhringaka (*Eclipta alba*) and pulverised iron. (771) Boil *all* this slowly over a gentle fire in oil of beleric myrobalan, and then, after having administered a purgative, apply it as an errhine. (772) For one month, the patient should eat only khichari[352] with sesamum-oil, and when he is thirsty, he should drink water in which the three myrobalans[18] have been steeped, (773*a*) or he may use it with any other kind of watery preparation.[353]

[349] On *grâma-dharma*, lit. village practice, as a synonym of *maithuna*, sexual intercourse, see the passage in the Dîgha Nikâya (*brahmajâla-sutta*), §8, *a-brahma-chariyam pahâya brahma-chârî Gôtamô viratô maithunâ gâma-dhammâ*, i.e., 'putting away unchastity, the chaste Gôtama holds himself aloof from sexual intercourse, the practice of village (domestic) life.' See Rys Davids' Dialogues of the Buddha, p. 4.

[349] The construction is *eṣâ âyuḥ sanniyarjayêt*; but perhaps the correct reading should be *sanniyartayêt*.

[350] This formula, in a slightly different recension, is given again in the tenth chapter, as a formula for a hair-dye. See *infra*, verses 905-909. I have not been able to trace it in any other medical work.

[351] *Jambû-mûlât-mrittikâ*, or 'earth from the roots of Jambû trees,' (so also in verse 906), is vegetable mould, or black soil, formed with decaying vegetable matter, such as is found in ponds and round the foot of trees. In verse 911 it is described as *añjana-varṇa-karâdamâ*, *i.e.*, 'mould of the colour of (black) antimony,' or, as the parallels in Charaka and Chakradatta (see note 434) have, *kṛishṇa-kardama*, *i.e.*, 'black mould,' which the commentators explain by *paṅka* 'mud,' and *padma-mûla-kardama* 'mould at the roots of the lotus.' The berries of the Jambû trees (also called *nîla-phala* or 'dark-fruited') are of a dark purple colour; they fall in great abundance from the tree and stain black the ground round its foot. In verse 645, the mould is called *kṛishṇa-mṛittikâ*, or 'black earth.'

[352] *Kṛisarâ*, in the vernacular *khichṛî* or *khichṛî* or *khichṛi*, is a well-known Indian dish. Its modern mode of preparing is to boil rice and *dâl* (*i.e.*, 'split pulses') with *garm mdsalâ* (*i.e.*, 'warm spices,' such as ginger, pepper, etc.) and salt, and then to grease it with *ghee* or 'clarified butter.' This practically agrees with the description in BhP., I, 2[18] *taṇḍulâ dâli-saṃmiśrâ lavaṇ-ârdraka-hiṅgubhiḥ | saṃyuktâ salilê siddhâ kṛisarâ kathitâ budhaiḥ* 3 *i.e.*, 'rice together with dâl, mixed with salt, fresh ginger and asafœtida, and boiled in water, is called khichari by those who know.' There appears to have been, however, another kind of dish, under the same name, which was made with *til* or 'sesame-seeds' instead of *dâl*. It is mentioned in the Chhandôga Parishishṭa: *tila-taṇḍula-saṃpakvaṃ kṛisaraṃ eḍ 'khidîyatê*, i.e., 'sesame-seed and rice, boiled together, are what is called *kṛisara*.' Similarly in Kullûka Bhaṭṭa's commentary to Manu V, 7: *kṛisaraṃ-tilâna saha siddha ôdanaḥ*, i.e., 'rice boiled with sesame-seed is kṛisara.' This variety of *khichari* is unknown at the present day as an article of food, so far as I can ascertain. Both are mentioned as varieties of *kṛisarâ* (fem.) in Śâ., II, 2[38] (vv. 138, 139), but according to the medical vocabulary Ayurvêdârtha Chandrikâ (*s. v.*) the *tila*-variety is *kṛisara* (masc.), while the *dâl*-variety is *kṛisarâ* (fem.).

[353] *Yûṣa-kṛitya*, lit. what is to be made with water, means any application of water, watery preparation, infusion. When thirsty the patient may use not only an infusion of the three myrobalans, but of any other suitable fruit or drug.

(X) A Tonic medicine devised by the Aśvins.[304]

(773*b*—781*a*.) To Viśvâmitra[305], the great sage, when he was undertaking a course of very severe asceticism, (774) the Aśvins, the divine physicians, best of benefactors, communicated, for the purpose of reconstituting his course of asceticism which he had broken, (775) the following most excellent tonic medicine, fit to promote health and strength: Let there be one prastha[a] of superior emblic myrobalans, plucked in the cold season, (776) and let them be macerated in their own juice for a period of twenty-one nights (*i.e.*, three weeks). Then add one prastha each of powdered long pepper and pulverised iron, (777) two prastha of honey, one adhaka[a] of clarified butter, two prastha of sugar, and half a prastha of plumbago-root. (778) Having put in all these ingredients, one should place *the whole*, for one month, in a vessel used for clarified butter or in any other[306], and then partake of it according to *the state of one's* strength. (779) Either one pala[a] or two pala should be taken as a linctus, early in the morning before having taken any meal. Thus one will live for a hundred *years*, in full vigour of mind and free from wrinkles and grey hair. (780) There are here no special directions required with regard to bathing, eating, or sexual intercourse.

Twenty-fourth Leaf: Obverse.

It is a blessed, glorious, quickening, happy, auspicious *and* excellent *prescription*, (781*a*) enunciated by Viśvâmitra, and highly esteemed by the Rishis.

(XI) A Prescription for Causing Bulkiness.[307]

(782.) In the winter one should regularly eat Aśvagandhâ (*Withania somnifera*) and black-sesamum seeds[308], mixed with sugar; and after it milk should invariably be drunk. This *treatment* has been appointed by God himself as a means for imparting *to any one* the strength of Vishṇu; by observing it for twelve days even an old man will become young.

[304] This formula, stripped of its mythological embellishments, and in two different recensions, is found in Ch., VI, 1[42] (vv. 83, 84 and cl. 83), under the names of *âmalaka-ghṛita* or 'Amalaka clarified butter' and *âmalaka-svarasêkṣu* or 'Amalaka linctus.' The only difference with regard to the ingredients is that, 1, in the place of iron-powder, the 'clarified butter prescribes ashes of *Paṭôla* (Betga frambosa), and the linctus omits it altogether, and 2, that both Charaka recensions omit plumbago-root. The quantities also differ.

[305] On Viśvâmitra see Dawson's Classical Dictionary of Hindu Mythology, *sub voce*; also J. Muir's Sanskrit Texts, Vol. I, pp. 388ff. quoted from the Mahâbhârata, Râmâyaṇa and other works. He was by birth a Kshatriya, but in order to obtain brâhmanhood, he undertook a course of intense self-mortification, extending over several thousand years. Once this course was interrupted, for ten years, through an amour with the heavenly nymph Menakâ, who had been sent by the dêva Indra to seduce Viśvâmitra. I cannot find, however, any traditional notice elsewhere, that in this misfortune he was assisted by the Aśvins; though there is some mention of assistance rendered by the Aśvins to his great enemy, the brâhman Vaśishṭha. The father of Śaṅkha is said to have been named Viśvâmitra; see S., VI, 18 (v. 1), and 66 (v. 1.)

[306] The direction, to place a preparation in a *ghṛita-bhâjana* or 'a vessel which has been used for clarified butter,' which often recurs, is explained in Ch., VI, 1[42] (c 82, l. 6-8) where it is prescribed that a preparation, when ready, should be placed *saṁsṛṣṭe ghṛitâ-bhâvite kumbhê, i.e.*, 'in a vessel of gold, or silver, or of earth saturated with clarified butter.' The *ghṛitâ-bhâjanê*, therefore, is an earthen pot which may not be fresh, but should be rendered imporous by saturation with clarified butter. On the other hand, a fresh vessel is enjoined in vv. 1003, 1114. The reference in *svadaṇḍê*, 'or in any other,' is evidently to a vessel of gold or silver.

[307] I have not been able to trace either this formula or the two following (Nos. XII and XIII) elsewhere. But compare the formulae in A H., VI, 39[47a] (v. 158), SŪ., LXIX, 10[87], V., LXXII[103] (v. 307), and Chi., LXX, 9*a*[97].

[308] There are three kinds of sesamum (*Sesamum indicum*): black, white, and red. The black is considered the best, and suited for medicinal use. See BhP., I, 1[23], and Mat. Med., p. 216. The white is a milder sort, used for children; see *infra*, v. 1090.

(XII)

(783.) [357]Aśvagandhâ (*Withania somnifera*) and Payasyâ (*Gynandropsis pentaphylla*) may be mixed and drunk with milk. If any lean person takes this regularly for one month, he will become stout.

Now we shall describe *another* formula for increasing the bulk of a lean person.

(XIII) A Prescription by Vṛihaspati[358] for Promoting Bulkiness.[359]

(Prose: 784.) *Take* Aśvagandhâ (*Withania somnifera*) with its roots, leaves and flowers, grown in ground undisturbed by the noise of ploughs, wheels or pestles[360], and make it into fine powder. Of this one may take a viḍâlapada[3], every day, as a linctus with clarified butter, and follow it up with a drink of milk. When it is digested one should eat one's food with milk. By *continuing* this *treatment* for a period of twenty-one nights (or three weeks) *a person* will become strong and stout: so says Vṛihaspati.

THE SEVENTH CHAPTER: FORMULAE FOR GRUELS.[361]

(I)

(Verse 785.) *Make* a decoction of jujubes, Kulattha (*Dolichos biflorus*), barley, and radishes, mix it with clarified butter and oil, and add curds with rice and rock-salt. This gruel will cure fever, also wind accumulated in the belly[362].

(II)

(786.) [363]*Take* dry ginger, long pepper, Chavya (*Piper Chaba*), roots of plumbago and of long pepper, together with rice. A gruel, made of these, cures slight abdominal pains, promotes the appetite, and improves the digestion.

[359] On Vṛihaspati see Dawson's Classical Dictionary of Hindu Mythology, *sub voce*. There was an ancient rishi or sage of that name, who was the preceptor of the dêvas. Another Vṛihaspati was the author of a *dharma-śâstra* or 'law-book.' There was also an author of some minor *jyôtisha* or 'astronomical' tracts, and other obscure authors of that name; see Aufrecht's Catalogus Catalogorum. There is no Vṛihaspati known as the author of any medical work, so far as I can discover, though the formula, here given, presents itself as a quotation from him. Some antidotal formulae, ascribed to him, are quoted in AS., I, 98[1]. See *infra*, note 400.

[360] *Chakra* refers to the wheels of a cart, and *musala*, to the large wooden pestle, used in cleaning rice. See Dr. Grierson's Behar Peasant Life, §617, p. 119.

[361] *Yavâgû* properly means a 'gruel made of rice,' but it may also be used occasionally of gruels made of other cereals. It is, as a rule, taken warm; for an exception, see verse 792. There are three kinds: *manḍâ* or 'liquid,' *pêyâ* or 'drinkable,' and *vilêpî* or 'viscous,' with fourteen, six, and four parts of water respectively to one part of rice. The quantity of rice should be one-fourth of that which a person usually consumes for his meal; and for the purpose of a gruel the rice should be crushed. The medicaments added to a gruel may be in the form of either a paste or a decoction, and thence gruels are called *kalka-sâdhya* and *kvâtha-sâdhya* respectively. When in paste, they should be mixed with the rice, and the whole boiled together; when used in decoction, this should be made first, and afterwards rice put in in the proportions above noted. Examples of these various kinds of gruel will be found among the formulae given in this chapter. Thus a *pêyâ* is given in verse 790, and a *kvâtha-sâdhya* in vv. 785 and 793-6. There are, however, also other varieties of preparing gruels; see Mat. Med., pp. 10, 268, 8â., II, 2[18] (vv. 128-148), Châ., I, 21-26[10], AH., I, 6[48] (vv. 25, 26).

[362] The condition referred to is flatulency, also called drum-belly, wind-dropsy, tympanitis, meteorism. It is called *âḍhmâna*, and is a symptom of *vâtaja* and *vâdhvarta*. S., VI, 55[27] (v. 35a) and Nid., p. 114, describe it as *vâyuḥ kôshṭhamapûrayat*. Wise, p. 350, has *dipanna-vâyu*. The reference, however, might be also to *sûta-gulma*, or internal tumours due to disorders of the air-humour.

[363] All the formulae, from here down to verse 801*b* inclusive (*i. e.*, Nos. II—XXV) are found, though in a different recension, in Châ., I, 2[18] (vv. 16 ff). Most of them I cannot trace in any other work; but No. II is given, in a different recension, in S., VI, 39[20] (v. 118), and the latter portion of No. II, in S., VI, 39[20] (v. 98b). Nos. IV, V, VII, in the recension of Charaka, occur in Châ., II, 10[18], III, 4[68], VII, 7[108]; and Nos. IV, also, in AH., IV, 9[39] (vv. 13b, 14a).

(III)

(787.) [303](*a*) *Take* the pulp of wood-apples, together with the pulp of bêl, also Chângêrî (*Oxalis corniculata*), and pomegranate, and buttermilk. A rice-gruel, prepared with these, acts as an astringent and digestive. (*b*) In the case of a disease, caused by *disorders of the* air[304], the set of five roots[305] should be added.

(IV)

(788.) [306]With Sâlaparṇî (*Desmodium gangeticum*) and Priśniparṇî (*Uraria lagopodioides*), also Balâ (*Sida cordifolia*), pulp of the bêl-fruit, and pomegranate, a rice-gruel may be prepared, *beneficial* in the case of *diseases due to disordered* phlegm, and diarrhœa due to phlegm and bile.

(V)

(789.) [307]An expert *physician* will boil a rice-gruel in Hrîvêra (*Pavonia odorata*), coriander-seed, blue lotus, dry ginger[308], goat's milk and an infusion of Priśniparṇî[309] (*Uraria lagopodioides*), as a useful *medicine* in cases of bloody diarrhœa.

(VI)

(790*a*.) [310]In a case of fetid diarrhœa a physician may give a pêyâ gruel[311] prepared with Indian sorrel, dry ginger, and Atîvishâ (*Aconitum heterophyllum*).

(VII)

(790*b*.) [312]In the case of diseases of the bladder a pêyâ gruel[313] may be made with Kaṇṭakârî (*Solanum xanthocarpum*), Śvadaṁshṭrâ (*Tribulus terrestris*), and soft molasses.[314]

(VIII)

(791.) [315]Baberang, roots of long pepper, Śigru (*Moringa pterygosperma*), carbonate of soda, and gum of the red-silk-cotton tree, mixed with buttermilk, make a rice-gruel which is useful for killing worms living in the intestines.

(IX)

(792.) [316]With raisins, Thôṇêyaka,[316]

Twenty-fourth Leaf: Reverse.

Śârivâ (*Ichnocarpus frutescens*), fried paddy, and long pepper, a pêyâ (or semi-liquid gruel) *may be made which*, taken well-cooled and mixed with honey, will remove morbid thirst grown to excess.

[304] In the corresponding formula in S., VI, 39[70] (v. 985) this is specified as *parama-jvara* or 'fever due to air,' while Kavirâj Avinâśa Chandra Kaviratna, in his Bengâlî paraphrase to Charaka, interprets it as *vâta-yukta atîsâra*, or 'diarrhœa due to air.'

[305] Kavirâj Avinâśa Chandra Kaviratna, in his Bengâlî paraphrase of this formula in Ch., I, 2, interprets this to be *Nâgara-mustaka* or Cyperus rotundus (vernacular *Mutkâ*).

[306] The reading of the original text *pagasy-âmbhasi* (*i. e.*, *payasya-ambhasi*), milky water, which gives no good sense, must be a scribal error for *payasy-ambhasi*, the former (*payasi*) to be construed with *chhâgî*, goat's milk, the latter (*ambhasi*) with *priśniparnyâḥ*, water (infusion) of Priśniparṇî.

[307] On *phânita* see Phar. Ind., III, p. 593. It is a kind of *guḍa* or 'molasses,' the extract of sugar-cane inspissated to the consistency of a soft, sticky, dark-brown mass.

[308] *Thôṇêyaka* is a prâkritized form of *Sthauṇêyaka*, on which see *ante*, Part I, note 73.

(X)

(793*a*.) [363]A rice-gruel, prepared with Sōmarāji (*Vernonia anthelmintica*), is said to be useful in diseases produced by poisons.

(XI)

(793*b*.) [363]A gruel, prepared with a decoction of pig's fat, may be used to cause the growth of the body.

(XII)

(794.) [10]A gruel of barley, mixed with vinegar of pomegranate and with the three acrids, and boiled also with asafœtida, may be taken with clarified butter, oil, and salt as a remedy in case of indigestion, nasal catarrh, and *disordered* phlegm.

(XIII)

(795*a*.) [365]A gruel made of parched Job's tears, and taken with honey, acts as an attenuant.

(XIV)

(795*b*.) [365]A gruel made of sesame-seeds, mixed with clarified butter, and taken with rock-salt, acts as a lubricant.

(XV)

(796*a*.) [365]A pēyā gruel[369] of Śyāmāka (*Panicum frumentaceum*), boiled in a decoction of Kuśālaparṇī (an inferior kind of *Desmodium gangeticum*)[370], acts as a desiccant.

(XVI)

(796*b*.) [365]A gruel, prepared with the set of ten roots[196], is beneficial in cases of hiccough, cough, and asthma.

(XVII)

(797*a*.) [365]In the case of diseases having their seat in the middle abdomen[370], clear spirits of rice, boiled in a pair of oleaginous substances[371], is beneficial.

(XVIII)

(797*b*.)*[365]With meat, Māsha (*Phaseolus Roxburghii*), sesamum-seeds, and vegetables *a gruel* may be prepared to serve as a fæcal evacuant.

(XIX)

(798*a*.) [365]A gruel, made with the kernels of the jāman and mango, and with wood-apples, and bēl, acts as a strong astringent.

[363] *Ku-śāḷaparṇī* I cannot find noticed anywhere. Ch., I. 2[18] (v. 24) reads *Kuṭ-ḍmalaka*, i.e., 'kuśa grass and emblic myrobalan.'

[370] On *pakv-āśaya* see S., I, 21, §[43] and Ch., VI, 5, v. 22[198]. The abdomen is divided into three parts: the upper *āmāśaya*, above the navel (*nābhi*); the middle, *pakvāśaya*, between navel and pelvis; the lower, *vasti* or *japhara*, in the pelvis. For another division into five parts, see Ch., VI. 5, v. 6[204].

[371] *Yamaka*, 'a pair,' is the technical term for any two *sneha* or 'oleaginous substances,' see Śā., III. 1[138] (v. 3), and *ante*, Part I, note 21. As a rule, it is interpreted to mean *ghṛita* 'clarified butter' and *taila* 'oil.'

(XX)

(798*b*.) [363]Alkaline ashes and asafœtida, also plumbago-root and tamarind, boiled together *into a gruel*, make an aperient.

(XXI)

(799*a*.) [367]Relief of flatulence[372] is afforded by a gruel made with roots of long pepper, chebulic myrobalan, and bêl.

(XXII)

(799*b*—800*a*.) [369]A gruel, prepared with buttermilk *and* taken with an after-draught of buttermilk, is beneficial in diseases caused by indulgence in clarified butter; (880*a*) but for diseases caused by indulgence in oil, a gruel prepared with half-watered buttermilk, sesame oil-cake, and honey.

(XXIII)

(800*b*.) [369]A gruel, prepared with long pepper and emblic myrobalans and boiled in a pair of oleaginous substances[371], acts as an expectorant.

(XXIV)

(801*a*.) [372]A gruel, made of rice and boiled with curds and Upôdakâ (*Bassella alba*)[373], acts as a cure for mental excitement.

(XXV)

(801*b*.) [373]With *flesh of* a large lizard[374], and juice of the prickly chaff-flower a gruel may be prepared as a remedy against hunger.[375]

(XXVI) The Gruel of Bhêla.[376]

(802—804.) In diseases due to *disordered* air a gruel prepared with the set of five roots[168], mixed with clarified butter and oil, and acidulated with pomegranates, is beneficial. Diseases due to *disordered* phlegm are cured by a gruel made of old cereals. In the case of diseases due to *disordered* bile *the patient* should drink a gruel prepared with (white) lotus, blue lotus, and sugar. (803) "May the Fire-god not depart from my body[377], may the Wind-god give me the vital airs, may Indra vouchsafe to me strength, and the Water-god bestow on me prosperity!" (804) Let the patient, after having eaten *the gruel*, and also when he has visited a woman, use water *to wash himself* while repeating the above spell taught by the Ṛishis: then his life will never fail.

[372] *Vât-ânulôma* is the same as *sadṛśa-vâi-ânulôma*, in verse 13.

[373] The text has *Upôsakâ* which seems to be either a prâkritic form, or a various name for *Upôdakâ*; for Ch., I, 2[16] (v. 31) reads *Upôdikâ*, of which there also exist a variant *Pûtikâ*. On *Upôdakâ* as a remedy for *mada* see AH., I, 6[41] (v. 83*a*). *Mada* or 'mental excitement' is the initial stage of *unmâda* or 'insanity.' See Nid., p. 85.

[374] *Gôdhâ* or 'Monitor' is a name applied to several large species of lizard of the genus Varanus, called by the Natives of India *ghôrâjo*, and by Europeans miscalled 'iguana.' They are looked upon as especially choice food by the people who eat them. They are not any species of Lacerta, which does not occur in India. So I am informed by Dr. Alcock, Superintendent of the Indian Museum.

[375] Kshuta, 'sneezing,' of our text is probably a false reading for *kshudha*, 'hunger, as in Ch., *I*, 2, v. 31[34]. The latter also inserts *kshîra* 'milk' as a third ingredient. This, however, is opposed to the statement in S., I, 20[7] (§ 3), that the flesh of the large lizard in combination with milk is poisonous, and should never be thus eaten.

[376] I have not been able to trace this formula elsewhere. In the Bhêḍa Saṁhitâ, in its present condition, according to Dr. Cordier, only the second half, verses 803 and 804, is actually found. On the use of old cereals as a remedy for bilious diseases, see AH., I, 3[29] (vv. 21-24) where barley and wheat are specially named. See also, S., I, 5[19] (vv. 15-28) for a similar but much longer invocation. On the physician Bhêla or Bheḍa, see *ante*, note 171; also Part I, note 4.

[377] *Mâ-âtkyagâd*, 'let not approach,' of the original text is a clerical error for *mâ vyagâd*, 'let not depart.' *Agni* refers to the digestive fire.

(XXVII)

(805 and 806.) [10]Of Ambashṭhakî (*Stephania hernandifolia*) together with fruit of Kuṭaja (*Holarrhena antidysenterica*), ginger, mango-kernels, Kaṭphala (*Myrica sapida*), jâman, Dhâtakî (*Woodfordia floribunda*), Hirivêra (*Pavonia odorata*), Śilôdbhidâ, (*Coleus aromaticus*)[378], Vârishṭha-musta (*Cyperus scariosus*)[379], blue lotus, and Kêsara (*Mesua ferrea*),

Twenty-fifth Leaf: Obverse.

(806) take one dharaṇa[9] each measured on a balance, and having tied them in a bundle round a reed[380], and washed them, prepare a gruel . . . . . .

(XXVIII)

(807.) [10]If the *patient* drinks a gruel, made of radishes, curds, clarified butter, oil and a proportionate measure of rice, that will relieve the wind that has accumulated in the bowels and is moving about there.[381]

(XXIX) The KALYÂṆIKÂ Gruel.[10]

(808 and 809.) One part each of cumin[382], fenugreek, ginger, plumbago-root, and (black cumin?), fried with clarified butter, and mixed with one part of salt, make an excellent gruel, known as the Kalyâṇikâ (or 'the auspicious'). (809) It invigorates the duodenum when in a torpid state, relieves *disorders of the* bile, phlegm and air, heals hæmorrhoids, and cures spleen, abdominal tumours, and malignant jaundice.

(XXX) A Formula for Three different Gruels by the Aśvins.[10]

(810—813.) (*a*) Take Śatapushpâ (*Peucedanum graveolens*), zedoary-root, bêl, Pushkara[12], plumbago-root, Vachâ (*Acorus Calamus*); *or* (*b*) vid-salt, sonchal-salt ginger, and long pepper; (811) or (*c*) one pala[9] of salt, with pomegranate, carpels of Tumburu (*Zanthoxylum alatum*), coriander, and cumin in equal parts; (812) and make these *sets severally* into a gruel with rice fried in a pair of oleaginous substances.[371] This relieves pains in the womb, retention of discharges, and strangury, (813) and cures nervous diseases[144] of whatsoever kind they may be. This *formula for making* gruels has been declared by the Aśvin pair, the best of physicians.[383]

[378] *Śilôdbhidâ* is the same as *Pâshâṇa-bhêdî*, in Mat. Med., p. 313.

[379] The *Vârishṭha-musta*, lit. 'water-growing Musta,' is not mentioned anywhere else under that name. I take it to be the same as *Nâgara-musta*, which is an aquatic plant and grows in ponds and ditches. See Phar. Ind., III, p. 554.

[380] The passage is mutilated here. A similar passage occurs in verse 809. I do not quite understand the direction, nor do the kavirâjes whom I consulted. *Narttaka* is said to be the same as *Dêva-nala*, which is a species of reed (Arundo tibialis); but the exact meaning of the word is uncertain.

[381] The reading *ajâtyarâ* is corrupt. Perhaps it should be *ajâu-yavâ*; and *Aja-yava* might be a synonym of *Ajâji* 'cumin,' or a similar plant. Kavirâj B. B. Gupta suggests *Ajâdi*.

[382] The construction of this passage is very confused. It should have run thus: *âdâh yavâgvam-âkhyâtâh Aśvinau bhishajâdhi varau, or âdyâ yavâgvâ-âkhyâtâ Aśvinâ*; but in this case the last two words would not have fitted in well. The confusion, perhaps, arose from the unsuccessful attempt to turn the originally active into a passive construction.

THE EIGHTH CHAPTER: FORMULAE FOR APHRODISIACS.[283]

(I) The SARASVATÎ Clarified Butter.[284]

(Verses 814 and 815.) Juice of sugar-cane, Vidârî (*Ipomoea digitata*), emblic myrobalan, clarified butter, milk, and honey:—*of these* take one prastha[285] each, and an equal quantity of meat-broth, (815) also five pala of liquorice and one prastha of decorticated Mâsha (*Phaseolus Roxburghii*). This is the Sarasvatî clarified butter for a Râjarshi who desires to beget a son.

(II)

(816—818.) [286]Boil one prastha[285] each of the juice of emblic myrobalan and sugar-cane, also one prastha each of the milk of a goat, and of a cow[286]; (817) also one prastha each of the juice of Vidârî (*Ipomoea digitata*) and clarified butter. When this *mixture* has become cool add one prastha of honey and twenty-five *pala*[286] of sugar, (818) also two kuḍava[285] (*i.e.*, one each) of black pepper and long pepper, cleaned and powdered. This makes a most excellent quickening, strengthening, and aphrodisiac *medicine*.

(III)

(819.) [287]Boil clarified butter and paste of Śatâvarî (*Asparagus racemosus*) in ten times *the former's* quantity of milk. This, when mixed with sugar, long pepper, and small-bees' honey, makes a most excellent aphrodisiac.

(IV)

(820.) [288]Juice of Gôkshuraka (*Tribulus terrestris*), clarified butter, and milk of both a goat and a cow, together with one prasṛita[285] of honey, makes a prescription *capacitating a man* for twenty seminal emissions.

(V)

(821 and 822.) [289]Let powders of Vidârî (*Ipomoea digitata*), and cowhage, also emblic myrobalan, Yavâsa (*Alhagi maurorum*), and . . . . . .

Twenty-fifth Leaf: Reverse.

be made into a paste with milk. (822) Let the whole then be fried in clarified butter, and when it has cooled, let it be mixed with honey. By eating this confection a wasted man will again attain to sexual vigour.

[283] The colophon in the text adds that this compendium or conspectus is drawn from the doctrines of sundry professors (*ada-dekârya*) of medicine.

[284] I have not been able to trace this formula elsewhere. It is not apparent why it is called Sarasvatî clarified butter. *Sarasvatî* is a synonym of *Brahmî* (Herpestris Monieria) as well as of *Jyôtishmatî* (Cardiospermum Halicacabum). But neither of these two enter into the formula. There are two other formulae for a Sârasvata clarified butter, of which one will be found in verses 258-260. That gives a remedy against defects in speech, and takes its name from Sarasvatî, the goddess of speech. The other, given in the Vangasêna, p. 904 (see *ante*, note 138), is a *rasâyana* or tonic prescription, and takes its name from its first ingredient *Brahmî*.

[285] *Payasah*, 'of milk.' I refer to cow's milk, as it is not specified; see *ante*, Part I, note 44. Compare also the fourth formula (verse 820) where also both are prescribed, goat's milk as well as cow's milk.

[286] The measure is here not mentioned in the text; but *pala* must be intended. Twenty-five pala are slightly more than one and a half prastha. See Part I, note 19.

[287] This formula is found, in the identical recension, in Ch., VI, 2[41] (v. 99), Chd., LXXI, 11[72], and SY., LXX, 21[99] V., LXXIII[288] (v. 74).

(VI)

(823 and 824.) [288]*Take* . . . . . together with five times as much of sugar, likewise honey and clarified butter. (824) Of this *confection* a dose of one aksha[a] should be eaten by a male whose member has suffered decay. He should not take any sour or acrid food, and he should abstain from bad practices.

(VII)

(825—827.) [10]Boil one pala[a] each of cowhage and of the set of five roots[174] in one adhaka of water. To this decoction add one and one-half as much of milk, (826) also one prastha[a] of powdered sugar, and one prastha each of honey and clarified butter. *Then* with wheaten flour make this up into boluses weighing one pala each. (827) By eating one of these a man may engage in sixty copulations, and becomes a favourite with women. It is said to be a most excellent aphrodisiac.

(VIII)

(828.) [10]The more any one eats of purified and decorticated[140] sesamum-seeds, macerated in the broth of sparrows, the more he will be able to engage in sexual intercourse.

(IX)

(829 and 830*a*.) [289]Let wheaten flour and cowhage-seeds be boiled in milk, and when cool, mix with honey and clarified butter. After having eaten this *confection*, drink some milk of a heifer. (830*a*) By the use of this *a man* will acquire unfailing sexual vigour for a fortnight.

(X)

(830*b*—832*a*.) [290]Let well-washed Mâsha (*Phaseolus Roxburghii*) be boiled in a decoction of Śvadaṁshṭrâ (*Tribulus terrestris*) and milk, (831) and mix it with honey and clarified butter. Of this *confection* a lump of the size of a bêl[a] may be eaten, and after it, in the evening, some milk mixed with sugar should be drunk (832*a*) by any man who desires in one day to go into a hundred women.

(XI)

(832*b* and 833*a*.) [10]Vidârî (*Ipomoea digitata*) should be fried in milk with clarified butter and honey. (833*a*) When cool, one may eat of this *confection* as much as one desires, and can then engage in sixty copulations.

(XII)

(833*b* and 834*a*.) [291]Take powders of Vidârî (*Ipomoea digitata*), macerate it in the

[288] I have not been able to trace this formula elsewhere. Compare, however, the formula in BhP., III [224] (lines 8, 9) and Mat. Med., p. 125, where also a warning against "bad practices" is given.

[289] This formula, in a practically identical recension, is found in S., IV, 26 [849] (v. 27). In another recension, combining it with formula XXII, it is given in AH., VI, 40 [877] (vv. 23*b*, 24).

[290] Compare the formula in AH., VI, 40 [879] (v. 34), where, however, three other ingredients are added.

[291] This formula is found, in another recension, in S., IV, 26 [849] (v. 20), SY., LXX, 7-9 [826], Chd., LXXI, 3*a* [792], V., LXXIII [897] (v. 11), and AH., VI, 40 [877] (v. 26). See also Mat. Med., p. 205, note 3. In a third, longer recension, with six additional ingredients, it occurs in Ch., VI, 2 [468] (vv. 141-143).

juice of the same *plant*, (834*a*) and make it up *into a confection* with honey and clarified butter. By eating this *a man* is made fit for ten emissions.

(XIII)

(834*b* and 835*a*.) [305]Similarly powders of emblic myrobalan may be macerated in the juice of the same, (835*a*) and made up *into a confection* with clarified butter and honey. By eating this one becomes fit for one hundred emissions.

(XIV)

(835*b* and 836*a*.) [306]Similarly the roots and buds and fruit of Aśvagandhâ (*Withania somnifera*), (836*a*) drunk during the day with milk, produce a night of twenty *emissions*.

(XV)

(836*b* and 837*a*.) [307] Hen-sparrows with eggs, clarified butter, and seeds of cowhage, (837*a*) when applied as a plaster to the (soles of the) feet, render a man potent, so long as he does not touch the earth.

(XVI)

(837*b* and 838*a*.) [308] Having plucked a sparrow of its feathers, add it to ten times its quantity of Dêmbukâ [309] (*Oroxylum indicum*). (838*a*) Clarified butter, boiled with this, is much recommended as a plaster for the feet.

(XVII)

(838*b*--840*a*.) [310]*Take* powders of Vidâri (*Ipomoea digitata*), Mâshâ (*Phaseolus Roxburghii*), and red rice, (839) mixed with the fat of a pig, and the raw eggs of sparrows, [311] add salt at discretion, and bake *with the whole* a śashkuli [312] in clarified butter. (840*a*) By dint of eating a pâṇitala [9] of this, *a man* may go into one hundred women.

Twenty-sixth Leaf: Obverse.

(XVIII)

(840*b* and 841*a*.) [10] . . . . . (may be taken) with honey and clarified butter; (841*a*) and on drinking milk after it, in the summer, *a man* may enter into ten copulations.

(XIX)

(841*b*—843*a*.) [11]Let there be the following eight ingredients: . . . . . (842) . . . . . and juice of the knots of lotus-root-stalks. Making a paste of these

[305] This formula, in a different recension, is found in S., IV, 20 [8.9] (vv. 21, 22*a*), Chd., LXXI, 36 [79], V., LXXIII [6-7] (v. 12) and AH., VI, 40 [27] (vv. 27, 28*a*).

[306] With reference to formulae XV and XVI, compare a formula given in S., IV, 20 [8.9] (vv. 28, 29) for a foot-plaster possessing the same virtue. The latter has *chaṭaka-śaṇḍa* or 'sparrow's eggs,' where our formula has *sañjyagbîjâ vâṭapâdâ*. *Adhyaṇḍâ*, with the meaning of 'egg-bearing,' 'pregnant,' is not noted in any Sanskrit dictionary; but in the present connection, the word must have some such meaning. According to Med. Dict., it is a synonym of three drugs: *Bhâdurvarnalatâ* (Phyllanthus Niruri), 2, *Atmagupta* (Mucuna pruriens), 3, *Kâkâlikshâ* (Hygrophilla spinosa), of these, the first is not an aphrodisiac. The seeds of the other two are used as aphrodisiacs (see Pharm. Ind., III, 37, 447), but those of *Atmagupta*, cowhage, are named in the formula under the name *Svayamgupta*. According to the same Med. Dict., *chaṭaka* is a synonym of the root of long pepper (*pippalimûla*); but in the *Kâśi Nighaṇṭu* neither *Adhyaṇḍâ*, nor *Chaṭaka* are mentioned as the names of vegetable drugs.

[309] *Dêmbukâ* is not given in any dictionary. I take it to be the same as *Dimbikâ*, which is a synonym of *Syâmâ*.

[310] Compare the formula in S., IV, 26 [8.9] (vv. 14, 15).

[311] *Anda-rasa*, lit. liquid of egg, is apparently the egg in its raw condition.

[312] *A śashkuli* is a pastry-puff in the form of a crescent or of a *môdaka* or 'bolus.'

with goat's milk, bake a śashkuli[397], in clarified butter. (843*a*) By *eating of this* only as much as the joint of the thumb, (one becomes fit for) half (a hundred) emissions.

(XX)

(843*b* and 844*a*.) [398] . . . . . (844*a*), and following it up with a draught of spirits of rice, a man becomes sexually excited.

(XXI)

(844*b* and 845*a*.) [399]He who eats to satiety of the flesh of a cock, and drinks milk after it, (845*a*) his member will not suffer relaxation, nor his semen, exhaustion, when he engages in copulation.

(XXII)

(845*b* and 846*a*.) [400]He who eats shashṭika rice,[401], prepared with clarified butter, together with a decoction of Mâsha (*Phaseolus Roxburghii*), (846*a*) and drinks milk after it, remains awake all night in sexual excitement.

(XXIII) The INDRAPRIYA prescription,[402] by Uśanas.[403]

(846*b* and 847*a*.) Sugar, honey, milk, clarified butter, the three acrids[404], and sour cream: (847*a*) all these should be boiled together, and may then be taken as the Indrapriya or medicated milk 'beloved by Indra.'

THE NINTH CHAPTER: FORMULAE FOR COLLYRIA.[405]

(I)

(Verses 848–850*a*.) [406]Of conch-shell take four parts; of realgar, one-half as much; of black pepper, one-half as much as of realgar; of rock salt, one-half as much as of black pepper. (849) These make the suppository used in the Vidêha[407] country, which

[398] This formula occurs, in a practically identical recension, in Ch., VI, 2 [68] (v. 44). The only difference is that the latter substitutes *sparrow's* 'flesh for cock's flesh. Compare, however, *ibidem*, v. 46, from which it would appear as if in our Manuscript two formulæ had been confused.

[399] This formula, in the identical version, occurs in Ch., VI, 2 [68] (v. 45). Compare also AH., VI, 40 [677] (vv. 23*b*, 24).

[400] Uśanas, with the patronymic *Kâvya*, was an ancient ṛishi or 'sage,' who was the preceptor of the asuras or daityas, the opponents of the dêvas. As such he is always represented in antagonism to Indra, the chief of the dêvas. It is curious that here the composition of a remedy which was a favourite with Indra is ascribed to him. It is curious also that both he as well as Vṛihaspati, the preceptor of the dêvas, (*see ante*, note 359) are named as authors of medical formulæ. To both the composition of *mantras* or 'charms' and *nîtis* or 'rules of conduct' are ascribed in the Mahâbhârata, and there is an antitoxic charm, called *Uśanâ-stôtra* or 'Uśanas' hymn' (see the larger Pet. Dict.). But there is no Uśanas known as the author of any medical work, though there exists an author, with that name, of a *smṛiti* or 'law-book' (see Aufrecht's Catalogus Catalogorum).

[401] With the exception of one or two formulæ, none of those given in this chapter can be traced in any other medical work; though, of course, the ingredients, by themselves, are common to all works on Indian medical science.

[402] The first part of this formula, verse 843, giving the ingredients, is found identically the same, in V., LXVI, vv. 207, 208 [68] and vv. 329, 330 [69], forming there the first part of two different recensions. The second part of either recension runs quite differently. Identical with the two Vangasêna recensions the formula also occurs in SY., LXI, 94 [69], Chd., LXII, 59 [62], and LXII, 90 [69].

[403] The Vidêha country is the modern Tirhût, with the ancient capital Mithilâ. It had a reputation for surgery. A *Vâidêha-tântra* or 'textbook on minor surgery' is ascribed to one of its kings(*vaidêha-pati*), see S., VI, 1 [68] (v. 3*a*). See *infra*, notes 412 and 421.

like a knife [404] destroys diseases, *viz.*, cataract when it has been operated on, as well as in its *earlier* glassy stage [405], purulent discharges, and bloodshottenness. (850) The conch-shell should be ground in cow's milk, realgar in goat's milk, black pepper in sheep's milk, and rock-salt in human milk.

(II)

(851.) [10]One part of black pepper, two of clearing-nut, three of sugar, four of cuttle-fish bone, together with five of calx of brass make a suppository, *useful* in all diseases of the eye.

(III)

(852.) [10]Sugar, red ochre, honey, and calx of brass, applied in the form of a lotion[406], is a pre-eminent remedy against all diseases of the eye.

(IV)

(853.) [10]Let curds mixed with salt be well rubbed on an iron vessel, and *with it* anoint the eye when it suffers severe pain; it will *then* quickly become well.

(V)

(854.) [10]Rock-salt, Vṛihatī (*Solanum indicum*), copper, Kaṭukā (*Picrorrhiza Kurroa*), conch-shell, and long pepper make the kôkilâ-suppository[407] for the cure of scrophulous ophthalmia[408], leucoma, and blear-eye.

(VI)

(855.) [10]Let long pepper and turmeric be rubbed repeatedly on a mirror[409], and anoint with them the eye when it suffers severe pain; it will then quickly become well.

(VII)

(856 and 857.) [10]Let resinous wood of Chiḍâ (*Pinus longifolia*) be made into fine powder, and let this powder be macerated for three days in the urine of a he-goat. (857) It then becomes a most excellent collyrium[410] for the cure of blear-eye and for the destruction of worms *in the eye*[411].

[404] *Bardḥa-tti* (or rather *vaddha-tti*) I take to be prâkritic for *vaddha iti*. *Vardha* is not given in any dictionary, but I take it to mean 'cutting instrument,' used in surgical operations on the eye.

[405] *Paṭala* has two meanings in Indian Medicine. First it means a 'cover,' or tunic of the eye: of these, there are said to be six; *viz.*, 1 and 2, the eyelids and eyelashes; 3, the sclerotic, said to be made of bone; 4, the vitreous humour, said to be made of fat; 5, the ciliary body, said to be made of flesh (muscle); 6, the aqueous humour, said to be made of a luminous fluid. Secondly, *paṭala* denotes a disease of the eye said to affect the sixth 'cover' of luminous fluid, the cataract. This disease is described by Suśruta VI, 7, as occurring in three stages, the initial dimming of sight (*timira*), the medial obfuscation of sight, when the eye appears like glass (*kâcha*), and the final stage of maturity (*paṭala*), when it may be operated (*dîrṇa*). See below verse 874. *Timira*, however, denotes also cataract generally, see v. 876.—*Mala* signifies the discharges in purulent ophthalmia, also called *pichchaṭa*.

[406] *Rasakriyâ* is the process of making a drug effective (*sâra-karaṇa*) by inspissation (*ghana-bhâva*); see Med. Dict. Its use is prescribed by Suśruta in diseases of the eye; *e.g.*, VI, 21, v. 12. It is one of three kinds of *ahjana*, unctus, *viz.*, *cûrṇa* (vv. 857, 864), *rasakriyâ*, and *piṇḍa* (or *vaṭi*), *i.e.*, in the shape of powder, or lotion, or paste or stick, Mal. Mêd., pp. 18, 19, AH., I, 23 (v. 13), VI, 11 (v. 6a). For some formulæ for *rasakriyâ*, see Ch., VI, 26 (vv. 228, 254-256).

[407] *Kôkilâ*, or the hen-bird of the Indian cuckoo, is the name of this preparation. The reason I cannot discover. There are two suppositories under this name mentioned, one in AH., VI, 13 [408] (v. 70), the other in Ch., LXII, 85 [412]; but they both differ entirely from our formula.

[408] *Sushkâkshi-rôga* is probably the 'same' as *tushkâkshipâka*, one of the diseases of the whole eye (*sarva-gata*); see Nid., p. 225.

[409] The use of a mirror, probably made of metal, is twice mentioned in formulæ of the Ashṭâṅga Hṛidaya. Once in VI, 16 [414] (v. 30b); certain drugs, though different ones, are to be ground on it, as in our formula. In the other case, in VI, 38 [341] (v. 16) the wound of a person bitten by a rat, is to be scarified with an arrow or a mirror; in the latter case, I suppose, by the reflection of the rays of the sun, focused on it.

[410] Compare the formula in Ch., VI, 26 [242] (v. 244), which substitutes *Êḍî* or 'caelamono' for *chiḍâ*-wood, but otherwise is practically the same. Gangâdhar's edition (p. 593) has vida-salt.

[411] The reference is to the *Krimi-granthi* disease; see S., VI, 2 (vv. 1, 7).

(VIII)

(858,) [10]One may cure cataract with saffron-water, scrophulous ophthalmia[411] with *plain* water, approaching *affections of the eye*, with honey, and recently sprung-up ones with milk.

Twenty-sixth Leaf: Reverse.

(IX)

(859 and 860*a*.) [11]*The following is* a remedy against . . . . . and cataract: the fat of a black snake[385] as well as the juice of the fruit of the emblic myrobalan tree:—(60*a*) by *the application of* these two, mixed with honey, any one who has been blind will recover his sight after three days.

(X)

(860*b* and 861*a*.) [10]Powdered Uśira (*Andropogon muricatus*), Tagara (*Tabernaemontana coronaria*), rock-salt, Paripêlava (*Cyperus rotundus*), (861*a*) cinnamon-bark, and red ochre make a paste[412] for *affections of* the eyelids.

(X)

(861*b*—863*a*.) [10]Realgar, antimony, red ochre, and long pepper, respectively ground with oil, goat's milk, he-goat's urine, and bull's urine, and *mixed together* in equal parts, may be prepared in the form of a suppository, (863*a*) which should be applied in the case of people who suffer from lippitudo and morbid lachrymation.

(XI)

(863*b* and 864*a*.) [10]Realgar, antimony, and white pepper[414]:—(864*a*) all these, in equal proportions, may be applied as a powder[408] against cataract.

(XII)

(864*b*—866*a*.) [10]Boil the three myrobalans[15] with turmeric, in equal parts, (865) in tank-water mixed with milk, and apply *the whole* as a douche for the relief of pains. This is an excellent and approved prescription which a wise physician should use (866*a*) in all diseases of the eye, particularly in painful ones.

(XIII)

(866*b* and 867.) [10]Take leaves of Punarnavâ (*Boerhaavia diffusa*), (and roots of) Vṛihati (*Solanum indicum*), Kaṇṭakârikâ (*Solanum xanthocarpum*), (867) Śvadaṃshṭrâ (*Tribulus terrestris*), and of the castor-plant[415], and boil them in goat's milk. This *mixed* with milk, honey, and tepid water, makes a most excellent lotion.

[411] This formula is found, in two different recensions, in Ch., VI, 26 [246] (v. 254), and V., LXVI [408] (v. 319). In the latter work it is ascribed to Vaiśâkha-pati (*i.e.*, Nimi); see *ante*, note 402, and *infra*, note 419. Compare also the formula in AH., VI, 13 [498] (v. 41).

[412] See *ante*, Part I, verse 108, and note 86.

[414] *Sveta-maricha* or 'white pepper' is the name by which the seeds of *Śigru* or Moringa pterygosperma are generally known. See Mat. Med., p. 118.

[415] *Vardhamânaka* is a synonym of *Eraṇḍa*, castor-plant. There are five ingredients, of which the last four belong to the lesser set of five roots, see Part I, note 48. Accordingly the direction must be understood to be that leaves of No. 1, but roots of Nos. 2-5, are to be taken. *Vardhamânaka* is one of the *Pañchamûla* in Ch., VIII, 10 (v. 17); there it takes the place of the usual *Gôkshuri*; but in verse 628, *Eraṇḍa* is added to the *Daśa-mûla* or larger set of ten roots, thus showing the identity of *Vardhamânaka* and *Eraṇḍa*.

(XIV)

(868) A copper-vessel, which has been smeared with clarified butter, fumigated with goat's horn, and rubbed with human milk, *may be used* for a douche for the relief of severe pains *in the eyes.*

(XV)

(869 and 870.) [416]Having suitably pounded Prapauṇḍarîka[181], liquorice, Śailêya[417], and honey, tie *the whole* to a clean piece of reed[240], (870) wet it frequently with water and squeeze it out from time to time. This makes a capital lotion for *the relief of* violent pains in the eyes.

(XVI)

(871—874*a*.) [10]*Take* root-bark of the two Vṛihatî[76], long pepper, ginger, and rock-salt together with copper, and grind *the whole* into a paste with milk. (872) Having made it into a soft paste, smear it over a copper-vessel; and repeat this process of grinding into paste and smearing for seven nights and eight days. (873) Then apply it to the eyes as a collyrium for the purpose of relieving pains. It will thoroughly cure swellings, and bloodshottenness. (874*a*) It will also remove lesions, *injuries* to the tunics, opacity, and cataract.

(XVII)

(874*b*—876*a*.) [10]Take of rasot . . . . . ., and realgar, ... (875) . . . . . and roots of Kuśa (*Poa cynosuroides*), and mix them with honey. This makes a remedy against purulent discharges and itching *of the eyes.* (876*a*) It also cures cataract when it has been operated[418], as well as diseases of the whole eye.

(XVIII)

(876*b* and 877*a*)[10] . . . . .

Twenty-seventh Leaf: Obverse.

and sixteen . . . . . , (877*a*) also liquorice and sugar make a suppository *useful* in any eye-*disease* of recent origin.

(XIX)

(877*b* and 878*a*.) [10]Sonchal-salt, the two Haridrâ[68], the three myrobaḷan[15], and the three acrids[23], mixed with liquorice, make a most excellent remedy against cataract.

(XX)

(879.) [10]Take Jâti (*Jasminum grandiflorum*), conch-shell, realgar, liquorice, cuttle-fish bone, madder, black pepper, and antimony in equal parts, and add Prâchînika[419] (*Stephania hernandifolia*) and long pepper (both) of an equal amount, and twice as much of good red ochre. This *which is a* remedy against all diseases is declared to be most beneficial as a suppository in the case of diseases of the eye.

[416] Compare the formulæ in Ch., VI. 26 [76] (vv. 236-240); also A H., VI. 16 [40] (vv. 25-27).

[417] *See ante*, Part I, note 71.

[418] *Prâchînikâ* is a synonym of *Pâṭhâ* (or Stephania hernandifolia); and this is expressly explained in a gloss, appended to the formula in our Manuscript. For a similar gloss *jaṅgama*, see Part VI, verse 15; Ind. Ant., XXI, 351.

(XXI)

(880–882.) [412]Prapauṇḍarika[413], liquorice, sugar, realgar, conch-shell, seeds of long pepper, rasot, and antimony, (881) calx of brass, seeds of the clearing-nut, and rock-salt, cuttle-fish bone, black pepper, and honey:—*of all these take* equal parts, (882) and *having made* pills, place them, well covered, in a shady place to dry. They may be applied as a suppository to induce the growth of the lashes[414] in the lippitudinous condition of sufferers from ophthalmia.

(XXII)

(883 and 884.) [415]Take one part each of white antimony and cuttle-fish bone, also one part each of white pepper[416] and long pepper, (884) and add one part of salt, equal to an aksha.[a] This, in the form of a fine powder, makes a capital remedy against cataract, highly esteemed by Nimi[417], and fit for people of respectability.

(XXIII)

(885.) [418]Red ochre, sugar and calx of brass, mixed with honey:—these make a lotion *useful* in diseases of the eye.

(XXIV)

(886.) [419]Three parts of chebulic myrobalan, and one part of ginger:—these, ground in water, make a suppository, beneficial in ophthalmia.

(XXV)

(887.) [420]White pepper[414], cuttle-fish bone, white sugar, murex-shell[421], powder of copper, seeds of the clearing-nut, iron-powder, roots of Garmuḍi (*Eleusine corocana*)[424], cardamoms, and rock-salt; also Kaṭukarōhiṇī (*Picrorrhiza Kurroa*), and aments of long pepper:—with a paste of these, made with water, make a suppository. As a remedy against cataract in its three stages[425], as well as against night-blindness, this is an auspicious suppository.

[412] For a similar formula, see AH., VI, 16, v. 56.

[413] *Rōman* is here the same as *pakshma*, eyelash, and *pakshma-tōda*, destruction of the eyelash, is an incident of *pilla* or *pailya*, also called *klēda* or *klinnākshi*, ophthalmia tarsi, often accompanied by *kaṇḍu*, itching; see AH., VI, 8 (v. 9), 16 (v. 52).

[414] Nimi is the name of an ancient physician, who is said to have been a Vaiḍēha, or a native of Vidēha, the modern Tirhūt, see Ch., I, 29 [15] (§ 12). In AH., VI, 13 [408] (v. 99) he is also mentioned as an eye-doctor, and called a *muni* or 'sage'; but in Ch., I, 26 [340] (v. 3) he is described as *rājā vaidēha* or 'king of Vidēha,' and he is usually simply referred to as the *vidēha-pati* or *vidēh-ādhipati* or *vidēh-ādhipa* or 'lord of Vidēha'; see S., VI, 1 [406] (v. 3a), AH., VI, 13 [408] (v. 276), 22 [412] (v. 83b), V., LVI [410] (v. 310b). As such, he seems to have been identified with Nimi, the founder of the dynasty of Mithilā about whom the myth is told that he died in consequence of a curse by the sage Vaśiṣṭha, and was then placed by the gods, in spirit form, in the eyes of living creatures. See Dowson's Classical Dictionary of Hindu Mythology, *sub voce*. According to Ch., I, 26 [340] (v. 4ff), he was one of the coteloye of nine physicians who disputed about the question of the number and nature of the *rasas* or 'tastes.' He maintained the existence of seven tastes, *viz.*, the six tastes usually recognised (*see infra*, note 442) with the addition of *kshāra* or 'caustic' (as distinguished from *lavaṇa* or 'saline').

[415] Compare Ch., VI, 26 [392] (vv. 235, 247, 248), V., LXVI [407] (v. 126) and AH., VI, 16 [408] (v. 24). Again V., LXVI [407] (v. 172), and AH., VI, 16 [408] (v. 615, 52). Again Chd., LXII, 78 [409].

[416] *Sēsākhandikā* is said to be a kind of fragrant shell. In Med. Dict. (under *Sankha*) it is identified with *nakhī*, which according to Royle (in Mat. Med., footnote, p. 15) is the lid of the Purpura or Murex shell; and which in Part III, verses 1 and 16, appears as *nakhikā*.

[417] The identity of *Garmuḍi* is uncertain. It is probably the same as *Gōrmuṇḍikā* or *Garmuṇḍikā*, which the RN., VIII, 26 (p. 361) identifies with *Jaraṇḍi*, and which is said, in Med. Dict., to be a 'kind of saline grass' (Beng. *Mārḍyā*) or a grain (*dhāna*). In Ch., I, 27 (v. 17) *Gaṛbāṭī* is enumerated as a spiked grain (*śūka-dhānya*) of an inferior sort, but not explained in Chakradatta's commentary. In the Mat. Med. it appears to be identified with *Rāgi*, Eleusine corocana.

[418] On the three stages, see note 405. *Kaṇḍu*, itching, seems out of place in this connexion; nor does it occur in the similar formula in Ch., VI, 26, v. 248b. One expects some word, corresponding to *dāha* in verse 874; perhaps *kkaṇḍa*, break, gap, may be suggested.

(XXVI)

(888—890.) [1]Aloes, sandal, cinnamon-leaves, saffron, and Késara (*Messua ferrea*), Vṛihatî (*Solanum indicum*), white pepper[624], Bhadramusta (*Cyperus rotundus*), and blue lotus :—(889) equal parts of these should be ground in human milk, or in the absence of human milk, they may be ground in goat's milk. (890) *This preparation* cures itching, cataract, discharges, and bloodshottenness, also night-blindness, and any other diseases of the eye.

Twenty-seventh Leaf: Reverse.

THE TENTH CHAPTER: FORMULAE FOR HAIR DYES.[625]

(I)

(Verse 891.) [1]Boil . . . . and oleander in sesame-oil. This, applied as an errhine or an ointment, is an approved remedy for turning grey hair into black.

(II)

(892 and 893*a*.) [627] A paste made of Prapauṇḍarika[151], and . . . . . (893*a*) and applied as a plaster, is a remedy for turning grey hair into black.

(III)

(893*b* and 894*a*.) [1]Bamboo-manna, garden-nightshade, Śatapushpâ (*Peucedanum graveolens*), and sesamum-seeds, (894*a*) if applied to the hair, causes them to become as black as antimony.[628]

(IV)

(894*b* and 895*a*.) [1]Indigo, rock-salt, and long pepper, made with water into a paste, (895*a*) if applied to the hair, causes them to become as black as antimony.

(V)

(895*b* and 896.) [1]First let the head be washed with chebulic and emblic myrobalans; (896) then prepare a paste of Alambushâ (*Sphaeranthus indicus*) and indigo, and with it, while warm, anoint the head; then the hairs will not turn grey.

(VI)

(897 and 898.) [1]Sulphate of copper, Musta (*Cyperus rotundus*), sulphate of iron, bile of a turtle[629], powdered iron, Dantî (*Baliospermum montanum*), Śaḥadêva (*Sida rhomboidea*), and Bhṛingaraja (*Eclipta alba*), one part of each, (898) boiled with oil of beleric myrobalan, are a remedy for turning grey hair into black, and if it is applied regularly as an ointment, it will prevent the hair from turning grey.

[624] None of the formulæ in this chapter, except one (No. VII), can be identified elsewhere. No. XI, however, belongs to a somewhat common type of formula, see the notes *infra*.

[625] Most medical works give a formula for an oil against grey hair, under the name of *Prapauṇḍarîk-âdya*, or 'commencing with Prapauṇḍarika.' See the references, *ante*, in note 180. It is not improbable that the present fragment belongs to that formula, though, as the concluding words show, it must have been in a recension, different from all elsewhere found. In one of these different recensions, it occurs in Chapter III on Oils, *ante*, No. XIII, verses 380-382.

[626] *Añjana* 'antimony' refers here to the well-known blacking cosmetic for application to the edges of the lower eyelids, also known as *surmâ*. See Professor Garbe's Indische Mineralien, p. 54, footnote 1; also *ante*, note 351.

[627] *Kûrma-pitta* or 'bile of a turtle,' together with some other of the ingredients here given, also occurs in a much longer formula, given in V., LXII [77] (v. 163).

(VII)

(899 and 900.) [430]One prastha[a] of the juice of Bhṛingaraja (*Eclipta alba*), the same quantity of milk, and one pala of liquorice, boiled in one kuḍava[a] of oil, will make even a crane to turn black.[431] (900) It will remove wrinkles and grey hair for twelve years within a week, and for one hundred years, within a month, if administered in the form of an errhine.

(VIII)

(901 and 902.) [432]Two pala[a] of the roots of Râmatarunî (*Rosa alba*), one pala of liquorice, half a pala of Śâvaraka (*Symplocos racemosa*), and ten pala of oil of beleric myrobalan, (902) boiled by the heat of the sun in an iron vessel for ten days, *and administered as* an errhine, make grey hairs to become of the same colour as the large black bee.

(IX)

(903 and 904.) [433]One prastha[a] of the juice of emblic myrobalan, the same quantity of clarified butter, and one pala[a] of liquorice :—all this together should be boiled over a gentle fire. (904) *Its application as an ointment* will give sight to the blind, and black colour to grey hair; and if perseveringly administered as an errhine, it will even restore one's lost sight[434].

(X)

(905—909.) [435]Take equal parts, of no more than one aksha[a], of each of the three myrobalans[15], indigo, and blue lotus; also of the fruit of Piṇḍâraka (*Vangueria spinosa*), (906) sulphide of antimony, roots of long pepper, and leaves of Sahachara (*Barleria cristata*); add a decoction of jâman, earth from the roots of the jâman tree[261],

Twenty-eighth Leaf: Obverse.

(907) fruit of Kakubha (*Terminalia arjuna*), and two kuḍava[a] of sesame-oil, and boil *the whole* in oil of beleric myrobalans slowly over a gentle fire. (908) Administer it now as an errhine for fifteen days; then on the sixteenth day the noble patient will have left no white hair, his scalp will be black, (909) his face and eyes will look well, and all his hair will be of a deep dark colour. So says Agastya, the best of teachers.

(XI)

(910—916.) [436]Take the three myrobalans[15], flowers of Sahachara (*Barleria cristata*) jâman, Kâṛshmarya (*Gmelina arborea*), flowers of Kakubha (*Terminalia arjuna*) kernel of the mango, and fruit of Piṇḍâraka (*Vangueria spinosa*), (911) also sulphate of

[430] This formula is found in two slightly differing recensions in Ch., VI, 26 [261] (v. 264) and SY., LVII, 71 [438], Chd., LV, 73 [439].

[431] With reference to this phrase, *see ante*, note 153. The same phrase is added to a formula on a hair-dye in AH., VI, 34 [440] (v. 44a).

[432] The technical meaning of *dṛishṭi* in ancient Indian anatomy is pupil, being the supposed seat of sight, not lens, the existence of which was not known. Here, however, the word has probably its ordinary meaning of sight.

[433] This formula, in another recension, is already given in Chapter VI, on Rasâyana or 'tonics'; *see ante*, verses 768-773a.

[434] Compare the following formulæ: the so-called *Mahâsiddha-taila* or 'great black oil' in Ch., VI, 26 [261] (vv. 265ff), Chd., LV, 74 [439], and the so-called *Nîla-bindu-taila* or 'black drops oil' in V., LXII [262] (vv. 162-168); also four other formulæ, *ibidem*, vv. 159-161, 169-171, 172 and 173-176. All these formulæ are of a similar type, though not identical with, nor different recensions of, our formula.

iron, flowers of Asana (*Terminalia tomentosa*), indigo, blue lotus, knots of the root-stalk of the lotus[425], sulphide of antimony, black mould[261], and powdered iron, (912) also both Kaṇṭakārikā[426], both Śārivā[41], Madayantī (*Jasminum Sambac*), juice of Bhṛiṅgaraja (*Eclipta alba*), and oil of beleric myrobalan. (913) Mix *the whole* with a decoction of Asana (*Terminalia tomentosa*), and let it stand unboiled for ten days in a vessel of iron. Then boil it thoroughly over a gentle fire, (914) and add to it one half as much of śukta[427], which had been kept placed in Mudga (*Phaseolus Mungo*) and Māsha (*Phaseolus Roxburghii*). Then on the completion of the half-month, having kept it well protected *in the meantime*, administer this *preparation*. (915) Having prepared[427] one's body with the three myrobalans, and dieting on khichari[222], one should use this oil as an errhine, in doses of one śukti[a] at a time, with care and in a sheltered spot.[428] (916) Whoever that has a white head, permits one prastha[a] of this oil to be given to him as an errhine, he will, after the administration of it, possess black hair.

ELEVENTH CHAPTER: THE DOCTRINE OF CHEBULIC MYROBALAN

according to the Aśvins.[429]

Now we shall proceed to declare the doctrine of the chebulic myrobalan.

(Verses 917—929.) [430]To Brahman, while sitting at his ease, the Aśvin pair spoke as follows: "Whence has the chebulic myrobalan sprung, and how many kinds of it are there said to exist? (918) How many *primary* tastes is it held to have, and how many secondary tastes? What are its names, and colours, and the marks of each kind? (919) What diseases does it relieve, and what are its colours and forms? In combination with what *other* drugs, what diseases does it cure? (920) This question, as asked, may your honour be pleased to answer." Having heard the words of the Aśvin pair, Brahman spoke as follows: (921) "The points which you have asked me, I shall severally explain to you, one after the other, so that you may fully understand them. (922) There fell a drop on the earth, when Śakra (*i.e.*, Indra) drank the ambrosia; thence that most excellent of medicinal plants, the chebulic myrobalan, took its origin. (923) Vijayā, Triviṭā[441], Rōhiṇī, Pūtanā, Amṛitā,

[425] *Visa* is the root-stalk, or scape, *i.e.*, that part of the stalk which is imbedded in the ground down to the roots. Hence *visa-granthi* is the same as *padma-nāla*, *i. e.*, properly the knots of the underground stalk; it is opposed to *sṛiṅḍia*, the above-ground, or leaf-stalk. See also verse 1109.

[426] The two *Kaṇṭakārikā* are the same as the two *Vṛikati*, see *ante*, note 76.

[427] *Śūkānta* probably refers to internal treatment. External application (to inflamed parts) is recorded only of the beleric myrobalan; see Mat. Med., p. 163. The reference is to the preliminary treatment, before using a *nasya*, or errhine; see Wise, p. 109.

[428] *Ekāntarasa* might also mean 'in a lonely place.'

[429] This chapter apparently professes to be the *Haritakī-kalpa* or 'doctrine of chebulic myrobalan,' extracted from a medical work by the Aśvins (see *ante*, note 126). This may have been the Aśvina Saṁhitā (see *ante*, Part I, note 4) of which the only two known manuscript copies are in the possession of Dr. P. Cordier. Their Haritaki Kalpa versions are printed in the Appendix. They differ widely in length and matter, not only from each other, but also from the version contained in our manuscript (see note 441). Our chapter probably presents the genuine version of the true ancient Aśvina Tantra and for that reason is of particular interest. A similar *haritaki-kalpa* which gives the doctrine of the ancient physician Hārita on chebulic myrobalan occurs in the Hārīta Saṁhitā, in its *kalpa-sthāna*. See the following note.

[430] This account of the origin and nature of chebulic myrobalan occurs in a similar recension in BhP., I, 1[108]. Only there the information is ascribed to the demiurge (*prajāpati*) Dakṣha, instead of Brahman himself. (On p. 159 *ibid.*, there is a false reading: it should be *jīvanti cāttaki, ch-īti pathyāyāḥ nāmāntarāṇāyāḥ*). Substantially the account is also found in the Madana Vinōda Nighaṇṭu, p. 2, also in the Rāja Nighaṇṭu, *sub voce*.

[441] The term *Triviṭā*, as the name of a kind of chebulic myrobalan, occurs also in the shorter of the two versions (v. 5) of the Haritaki Kalpa of the Aśvina Saṁhitā of Dr. Cordier (see note 439). In the longer version (v. 6) it is replaced by the term *Chēṭakī*; and the latter is the usual name found in other medical works, such as the Bhāva Prakāśa, Hārīta and Atrēya Saṁhitās, and Madana Vinōda Nighaṇṭus. Instead of the term *pūtana*, common to all other works, including the longer Aśvina

Twenty-eighth Leaf: Reverse.

Jivanti and Abhayâ: these are the seven kinds of chebulic myrobalans. (924) The Vijayâ *kind* is shaped like the bottle-gourd; the globular *kind* is the Rôhiṇî. The Pûtanâ has a large stone and is thin *in flesh*; the Amṛitâ has a fruit with a thick fleshy part. (925) The Jivantî is of golden colour: the Trivṛitâ is five-edged, and the Abhayâ is black; *thus* Brahman has declared long ago to the world. (926) I shall briefly describe the tastes, and powers of these *seven kinds of* chebulic myrobalans. They possess five tastes, and are of heating power, but they are wanting in saline taste, and are very beneficial.[462] (927) On account of its quality of being destitute of the saline taste, chebulic myrobalan is innocuous[463]; because it expels the waste products of the body, it is considered to be productive of health and preservative of life. (928) It is auspicious, quickly-curing, very remedial, ever

version, the shorter version (v. 3) has *pṛitha-mûnd*. There are other details in which the two versions of Dr. Cordier's MSS. differ from the version in our Manuscript. Thus, while the shorter version, equally with our Manuscript, describes the *Trivṛitâ* variety as five-limbed (*pañch-âṅgî*) (v. 5), in the longer version *Châtakî*, which there takes the place of *Trivṛitâ*, is said to be known as *dîrdha* (*sic*); and in other works it is said to be 'three-edged' (HS. and RN. *Try-asrâ*, MV. Nigh. *try-aṅgî*, BhP. *tri-rekhâ*). Moreover, according to the longer version, which herein agrees with other works (HS., V, 2[76], BhP., V, 1[95], Atr. Saṁhitâ in RN., p. 49), *Châtakî* is of two kinds: black (or dark, *kṛishṇâ*) and white (or bright, *śuklâ*); but as *Châtakî*, in those works, is described as a purgative (*virêchanî*), there may be, regarding that division, a confusion of *trivṛitâ* (=*Châtakî*) with *Trivṛit*, turpeth-root, which is a well-known purgative, and which is divided into a black and white kind, see Mat. Med., p. 203. Again the *Rôhiṇî* variety, which in our Manuscript is described as 'globular' (*vṛittâ*), is in the shorter version (v. 3) said to be 'four-limbed' (*châtur-aṅgî*), while HS., V, 1[95] calls it 'three-edged' (*try-asrâ*), and the longer version (v. 7) says that it is not particularly distinguished (*anyaliṅgâ*). Again, as to the *Pûtanâ* variety, the longer version, agreeing with our Manuscript, says that it has a large stone and is small (*asthimayî* and *sûkshmâ*), but the shorter version (v. 4) describes it as 'dry-skinned' (*śushka-tvak*), and HS., V, 1[95] as 'four-edged' (*châtur-asrâ*). Again as to the *Abhayâ* variety, the longer version (v. 8) describes it as 'five-edged' (*pañch-âsrâ*), agreeing herein with other works (*e.g.*, HS., V, 1[95] *pañch-âsrâ*, MV., Nigh. *pañch-âṅgî*, Bh.P. *pañcha-rekhâ*); but the shorter version (v. 4), in agreement with our Manuscript, calls it 'black-coloured (*kṛishṇa-varṇâ*). The term *kâlakî*, black, which is used in our Manuscript, does not occur elsewhere, though it is found, apparently, in some MSS of the Hârîta Saṁhitâ (see ed., p. 780). It is only with respect to the description of the *Amṛitâ* and *Jivanti* varieties that there is any agreement in the three versions and other works. In the main, the difference would appear to be that while our Manuscript, together with the shorter version, makes the *Trivṛitâ* variety to be 'five-edged,' and the *Abhayâ* variety to be 'black' (or dark), all other accounts, including the longer version, reversely, make *Abhayâ* to be 'five-edged,' and *Châtakî* (=*Trivṛitâ*) to be 'black'; and *pro tanto* the shorter version deserves preference in point of genuineness.—It may be added that the two versions of Dr. Cordier's Aśvina Saṁhitâ supply particulars also regarding the habitat and efficacy of the different varieties of chebulic myrobalan, neither of which is mentioned in the version of our Manuscript. Thus as to habitat, the shorter version attributes *Vijayâ* to the Vindhyâs, *Trivṛitâ* to the Himâlayas (HS. to Champâ), *Rôhiṇî* to Kanauj (HS. to the Ilâva district, Âtr. S. to Pratishṭhâna), *Pûtanâ* to Saurâshṭra (HS. to Magadha, Âtr. S. to Simdhu), *Amṛitâ* to the banks of the Ganges (Âtr. S. to those of the Śarju, RN. to Champâ), *Jîvantî* to Kashmir (HS. to Saurâshṭra), and *Abhayâ* to the banks of the Vêṇâ river (HS. to the Himâlayas, RN. to Saurâshṭra). The longer version is silent on this subject. As to efficacy, the shorter version states that *Vijayâ* is good for disorders of the air-humour, *Trivṛitâ* for the granulation of wounds (*vraṇa-rôpaṇa*), *Rôhiṇî* for all humoural disorders, *Pûtanâ* for bile-disorders, *Amṛitâ* for phlegm-disorders, *Jîvantî* for hæmorrhoids, and *Abhayâ* for all diseases. On the other hand, the longer version, in agreement with the Hârîta Saṁhitâ, prescribes *Rôhiṇî* for the granulation of wounds, *Pûtanâ* for plasters, *Jîvantî* for powders, and *Abhayâ* for diseases of the eye, to which the Râja Nighaṇṭu adds *Amṛitâ* for purging (*virêchana*). On both subjects, therefore, there exists no agreement of any kind. Finally, I may note, that particular prominence is given in our Manuscript to the *Abhayâ* variety (v. 929), and in the formulæ (see Nos. III and V) the names *Abhayâ* and *Harîtakî* are treated as perfectly synonymous. I have shown the occurrence of the two names in brackets in the translation.

[462] This remark about the tastes occurs, identically, in Ch., VI, 1[48] (v. 26a). The usually accepted six *rasa* or 'tastes' are: 1, *svâdu* or *madhura* 'sweet' (as in *guḍa* or 'molasses'); 2, *amla* 'sour' (as in *mâtuluṅga* or 'citrons'); 3, *lavaṇa* or *lôhara* 'saline' (as in *sauṁbhara* or 'rock-salt'), 4, *tikta* 'bitter' (as in *kirâtatikta* or 'chiretta'), 5, *ôshaṇa* or *katu* 'acrid' (as in *maricha* or 'black pepper'), and 6, *kashâya* 'astringent' (as in *harîtakî* or 'chebulic myrobalan'). See AH., I, 1[8] (v. 14b);—S., I, 42[38] (§1). There is, however, a curious account of an ancient divergence of teaching on this point, related in Ch., I, 26[16] (vv. 11f.). Nine physicians (among them Nimi, see *ante*, note 421; and Kâṅkâyana, see *infra*, note 440) are there named who respectively held from one to seven, and innumerable tastes. A hexade of tastes was held among them by the royal sage Vâṇyavida; but its component parts were different from those of the usual hexade. They were rather related to the sense of touch and were the following: *guru* 'heavy,' *laghu* 'light,' *śîta* 'cold,' *ushṇa* 'hot,' *snigdha* 'greasy,' *rûkshu* 'dry.' The established hexade was that taught by Atréya.

[463] *Niratyaya* might also mean 'unfailing.'

harmless, agreeable, health-giving, and a curative agent for the poor[444] (929) as well as for the young, and for such men as are in constant suffering.[445] The chebulic myrobalan (Abhayâ), indeed, is a blessing to men and always useful for the purpose of medical treatment.

(I)

(930 and 931.) [446]Whoever eats chebulic myrobalan (Abhayâ) together with rock-salt and ginger, and alternately with these, long peppers, no disease will be able to overcome him. (931) Or let a man eat two *chebulic myrobalans* well mixed with an equal quantity[447] of molasses every day, he will then overcome every disease, and reach a thousand years.

(II)

(932 and 933.) [448]He who takes chebulic myrobalan (Abhayâ) together with Mudga (*Phaseolous Mungo*) for his slight (early) meal, he will live for an hundred years, repelling every kind of disease. (933) By regularly observing this diet, he will become healthy, strong, free of wrinkles and grey hair, and vigorous in body.

(III)

(934.) [449]Chebulic myrobalan (Abhayâ), turmeric, long pepper, also rock-salt, and Kushṭha (*Saussurea Lappa*), mixed with cow's urine, act as a purgative.

(IV)

(935.) [450]Molasses, juice of raisins, small bee's honey, and chebulic myrobalans (Haritaki) :—these make Kâṅkâyana's[450] prescription of a purgative for bilious subjects.

(V)

(936.) [451]Long pepper, rock-salt, baberang, and chebulic myrobalans (Haritaki) mixed with cow's urine and turmeric, act as a purgative.

(VI)

(937.) Chebulic myrobalan (Haritaki), together with the same quantity of molasses, and mixed with honey, makes a suitable purgative preparation, and is an approved tonic medicine.

[444] Compare the HS., V, 3[78] (vv. 5*b*, 6*b*) where the chebulic myrobalan is described as *sukumârânâṁ hitaṁ* 'beneficial to the young' and *daridrânâṁ-anapâya-rasâyanam* or 'an efficacious tonic for the poor.'—*Chikitsati* here, and *Chikitsatâ*, in verse 949, is a curious construction of a verb with the genitive of the object. Its explanation as a Prakriticism (for *chikitsâ iti*), in the footnote on p. 69 is hardly tenable.

[445] *Prâṇa-klêśa* might also mean 'being in the pangs of death.'

[446] I have not been able to identify this formula elsewhere. Compare, however, the very similar formula in AH., VI, 39 [425] (v. 147), also the direction in S., 1V, 5 [66] (§14) where the alternative use of *guḍa-karitaki* or 'chebulic myrobalan with molasses,' or of the Pippali-vardhamâna (see *ante*, vv. 716-75*a*) is prescribed. Compare also AH., IV, 15 [40] (vv. 40, 41), where likewise the alternative use of a *karitaki-sahasra* 'or one thousand chebulic myrobalans,' or of a *pippali-sahasra* or 'one thousand long peppers' is recommended in the case of *jaṭhara* or 'enlargement of the abdomen' (see *supra*, verse 940), see also *ibidem*, VI, 39 [424] (v. 21). See also the formula in Chd., I, 1 [59] [2] which prescribes the alternative use of the Pippali-vardhamâna or of a linctus made of chebulic myrobalan and honey, against *vishama-jvara* or 'intermittent fever' (see *infra*, verse 939).

[447] The curious phrase *guḍa-mitra-dvitîyâm* apparently means 'myrobalan) mixed with treacle so that each forms one-half'; or literally, '(myrobalan) mixed with treacle forming the second (half of the dose)'. See the similar phrase *madhu-dvitîyâ* in verse 471.

[448] The formulae III and V are practically identical; they only differ in having *Kushṭa* and *Vidaṅgâ* (or 'baberang') respectively. With them may be compared the two formulae in S., I, 44 [67] (vv. 62 and 63), which also differ in the point of *Kushṭa* and *Vidaṅgâ*; but they also substitute two other drugs each for the long pepper of our formulae. See also V., LXXVIII [69] (v. 16).

[449] Kâṅkâyana is the name of an ancient physician, who is said to have been a Vâhlika or Vâhlika or 'a native of Balkh,' see Ch., I, 26 [68] (v. 3). He is there represented as having held with Nimi (see *ante*, note 421) and other physicians a disquisition on the number of *rasa* or 'tastes.' He held that the tastes were innumerable, and that they could only be described according to their abode, quality, and manner of action; see *ante*, note 442. He is also named in Ch., I, 1 (v.10), 12 [69] (§ 4) among a number of other ancient physicians.

(938—946.) [420]This chebulic myrobalan (Haritakî), as above stated, cures diseases; but hear now from me in detail, what I have already explained in brief; (939) the chebulic myrobalan (Haritakî) is a remedy against intermittent fever, and the toxic effects of spirituous liquors; it promotes the digestive faculty, and quickly cures abdominal tumours. (940) The administration of chebulic myrobalan (Haritakî) also cures enlargements of the abdomen[421], is a preservative of life, and regulates the flow of the phlegmatic humour[422], in consumptive subjects, (941) cough, asthma, hiccough, syncope[423], swooning, and hysterical convulsions. None *of these diseases* is able to withstand the chebulic myrobalan (Abhayâ), as little as the Asuras *can withstand* the hosts of Indra. (942) Chebulic myrobalan (Haritakî) cures severe jaundice and skin-diseases; it relieves hæmorrhoids, and heals every kind of morbid secretion of urine.

Twenty-ninth Leaf: Obverse.

(943) By the administration of chebulic myrobalan (Haritakî) inflammatory swellings are resolved. Dysentery intensified by *deranged* air, (944) disorders due to phlegm and bile[424] or to blood and bile (*i.e.*, hæmorrhage), morbid pallor[7], malignant jaundice, and . . . . . *other* diseases *are relieved* by *the use of* chebulic myrobalan (Abhayâ). (945) It cures also nasal catarrh, discoloration, loss of voice, loss of appetite, heart-diseases, and swooning. (946) Just as Vaiśvânara (*i.e*, the fire) becomes strong if joined with the wind, so the chebulic myrobalan (Haritakî) becomes endowed with virtue *if joined* with molasses.

There are the following verses *on this subject*:—

(947—949.) "In any circumstances if *chebulic myrobalan*, mixed with molasses, be taken as medicine in the form of a draught or of a linctus, it turns the diseases of men even when they are difficult to treat and of long standing, into healthy states. (948) There does not exist on earth the disease of men which cannot be effectively overcome by chebulic myrobalan (Haritakî). That glorious *drug*, sprung from ambrosia, should, *therefore*, be administered steadfastly under all circumstances. (949) Beneficial to horses is salt[425]; water is recommended for elephants, and potential cautery for cows; chebulic myrobalan (Haritakî) is the very best medicine for men." Thus spoke the Lotus-born (*i.e.*, Brahman).

THE TWELFTH CHAPTER: THE DOCTRINE OF BITUMEN.[426]

We shall now proceed to state the doctrine of bitumen.

[420] For a similar enumeration of diseases against which chebulic myrobalan is held to be a remedy, see Ch., VI, 1 [433] (vv. 26ff.) and Bhl., I, 1 [180] (lines 3-7). The parallel passage in Charaka shows that the *viśama* in our text means *viśama-jvara* or 'intermittent fever.' Compare also the formula in Ch., I, 159 [33] which prescribes a linctus of chebulic myrobalan and honey against intermittent fever. It might, however, also mean irregular digestion.

[421] *Dvâra* is explained in the Med. Dict. as *nigama*, road or channel of entrance. *Kapha-dvâra*, accordingly, are the *dhamanî* vessels, through which *kapha*, or the phlegm humour, is conveyed. Myrobalan is said to regulate the 'doors,' or avenues, of the phlegm humour, for phlegm 'bestows moisture'; it is 'cooling and moist,' and thus it counteracts *śôṣa*, or the drying up of the body; see Wise, pp. 43. 46.

[422] As a distinct malady, like *rakta-pitta* or hæmorrhage, *ślêṣma-pitta* does not appear to be known; but there is a kind of fever due to it. Also the skin-diseases *dadru* and *ślîpadî* are ascribed to it in AH., III, 14 (v. 9) and I, 6 (v. 156), where *Haritakî* is mentioned as a remedy against it.

[423] Compare with this the direction, quoted from the Siddha Yôga Sangraha (a medical treatise on horses) by Mallinâtha in his commentary to the Raghuvaṁśa V, 73: *pûrve-dhnu-kṣîṇê cê-dîyâd yadyatî lavaṇaṁ hitaṁ*, *i.e.*, 'in the morning time salt is, as a rule, beneficial to horses.'

[424] The whole of this chapter, in a practically identical recension, is found in Ch., VI, 1 [434] (vv. 149ff.) There are only the following noteworthy exceptions: 1, in Charaka

(Verses 950—957*a*.) [625]Bitumen is sub-acid, astringent, and acrid in digesting; it is also neither very hot, nor very cold; and it is produced from *the following* four metals: (951) gold, copper, silver, and iron. When properly administered it serves as a tonic, aphrodisiac, and curative agent.[627] (952) It attains the highest development of its power when it is macerated with such decocted drugs, either combinedly or singly, as cure *disorders of the* air, bile, and phlegm respectively. (953) The matter that rises from it when it is thrown *into a decoction of those drugs*, and that settles on the surface, should be thrown again into a decoction *of the same drugs*, while warm, and in this manner the maceration[628] should be carried on for seven days. (954) *Prepared* in the aforesaid manner, *mixed* with powdered iron, and drunk with milk, it confers a long life, full of ease. (955) It also relieves diseases incident to old age, gives firmness to the body, promotes intelligence and memory, and imparts strength. A milk-diet should be observed, when it is administered. (956) There are three ways of administering it, in periods of seven weeks, of three weeks[629], and of one week respectively, which are distinguished as the superior, the middling, and the inferior. (957*a*) Their *respective* doses are one pala, half a pala, and for the smallest, half a karsha.

(957*b*—964.) Now I will explain the various kinds *of bitumen*, with the ways of using them, (958) Gold and the other metals in the mountains, when heated by the sun, emit their impurities, oil-like, heavy, and clay-like[630]: those are the bitumen.

Twenty-ninth Leaf: Reverse.

(959) Sweet together with bitter, in colour like the shoe-flower, in digesting acrid and cold, such is the outflow of the gold. (960) *That of* copper is in colour like the throat of a peacock sharp and hot, and in digestion acrid. That of silver is acrid, white, cold, and when digested, sweet. (961) (That which is in colour like bdellium, *in taste* bitter and

silver comes, in its natural position, before copper (see vv. 951 and 960); 2, in Charaka the smallest dose is one karsha (see v. 957*a*); 3, between verses 964 and 965, Charaka interpolates an additional verse; 4, in verse 965, Charaka reads *prayōjyāḥ* for *prashāḥ*, see below, note 462. Nearly the whole of the chapter is also found in Chd., LXX, 64 and 65 [626], which professes to give the Charaka recension, but the verses are given in a different order, and some of them (*e.g.*, vv. 958, 960, 962) agree with our recension rather than with that found in the printed editions of Charaka. On the other hand, the directions about 'maceration' are given in a very different, and more detailed version. Substantially the same account, but in an altogether different version, is given in BhP., I, 1 [36], and again in another version in AiL., VI, 39 [626] (vv. 131-143). In the commentary to the latter, three verses of our version (vv. 950, 956, and 964) are quoted, though in slightly different recensions; see the following notes. They are there ascribed to an anonymous muni or 'sage'.—On *śilājatu* see Journal, As. Soc. Beng., vol. LXXII, p. 98 (1903).

[625] In this verse I read *u-dīṣy-amlāḥ*, 'not very acid' for *u-dīṣy-auṣṇāḥ*, 'not very hot.' This emendation is obvious, for *u-dīṣy-auṣṇa* is repeated in the following half-verse; moreover, all the parallel recensions (see preceding note) have *a-amlāḥ*. I also read, with all the parallel recensions, *sambhāvaḥ* for *nirdiśēt*. The latter makes no sense, and would seem to have been a marginal gloss, which erroneously got imported into the text, and displaced the proper word. The following verse (951) enumerates the *chatur-dhātu* or 'four metals,' and in order to indicate this fact, probably some scribe wrote on the margin the gloss *nirdiśēt*, *i.e.*, 'he enumerates them.' I may here note that this chapter is particularly full of copyist's errors; and I may add generally, that the writing of our Manuscript, in the later leaves, is much less accurate than in the earlier ones.

[626] On *bhāvanā* or 'maceration' see *note*, note 28. On the particular process, here enjoined, see Mott. Moff., p. 95, where it is more fully explained. The directions, given in our recension, are rather obscure; they are set forth in much more and clearer detail in the Chakradatta recension. See note 454.

[627] I read, with all the parallel recensions, *trayas* for *tryaha*. The latter, meaning 'of three days,' makes no sense.

[628] The reading *muritva-bhēkhasya* of our Manuscript is also given by the Chakradatta recension, and is there, in the Bengali paraphrase of Kavirāj Pyāri Mōhan Sēngupta, explained to mean *mardana o svachchha*, 'soft and clear.' The Charaka and Ashṭaṅga Hridaya recensions (see note 454) however, read *muritva-bhēka*, 'clay-like,' and I have adopted that reading in my translation. Moreover, instead of *snigdhōkhasya guru* all the parallel recensions have *jata-dhārasya mridu*, *i.e.*, 'gum-like and soft.' *Jata-dhārasya*, like *snigdhōkhasya*, indicates 'unctuousness' or 'stickiness.'

saline[459]), in digestion acrid and cold, is the best of all and is of iron. (962) All have the smell of cow's urine, and all may be used in medical practice; but for use as an ingredient in tonic medicines the last is most to be preferred; (963) while in *disorders due to* air and bile, to phlegm and bile, to phlegm, and to all three combined, the outflow of (bituminous) impurities from gold and the other *metals* respectively is particularly recommended[460]. (964) While any treatment with bitumen is actually in progress, one should abstain from all heating and indigestible things, but at all times one should altogether abstain from the use of Kulattha (*Dolichos biflorus*).[461]

(965—967*a*.) Various kinds of milk, śukta[67], meat-broths[253] cooked with pulses, water mixed with cow's urine, also diverse decoctions, are approved for the purpose of mixing with bitumen. Any of these may be administered[462], being made with due regard *to the particular disorder*. (966) There is no disease on earth, capable of being healed, which bitumen will not thoroughly overcome. Hence administered in any of these various ways, (967*a*) it will also to the healthy impart strength of every kind.

THE THIRTEENTH CHAPTER. THE DOCTRINE OF THE PLUMBAGO-PLANT.[463]

We shall now proceed to declare the doctrine of the plumbago-plant.

(Verses 968—974*a*.) Dhanvantari[120], the most wise, was asked by Kéśava (or Vishṇu): "Is there any medicine at all capable of curing all diseases?" (969) Hearing the query of Kéśava, Dhanvantari replied: "Comparable with the plumbago-plant there is no medicine: so it is said. (970) Know also that it is of three kinds: black, white, and yellow, respectively distinguished as the best, the least, and the middling. (971) To patients suffering from skin-diseases, morbid secretion of urine, enlargements of the abdomen[121], and white leprosy, mark that the black variety is particularly beneficial. (972) As a remedy against chronic diarrhœa and hæmorrhoids, and a cure for acute diarrhœa, and as a preservative of life and promoter of intelligence, the white-flowered variety is distinguished. (973) The yellow variety is held to stimulate the intellect, good spirits, and digestion, and to cure *disordered* phlegm. They are respectively

[459] The bracketed portion of this verse appears to have been accidentally omitted from our Manuscript. I have supplied it from Ch., VI, 1 [68] (v. 159*a*).

[460] Here the reading of the original text appears to be corrupt. *Prajāyanti* should be *prajāyeyuḥ* (potive), and instead of the pleonastic *malo*, which recurs in *kēna-malēnāpyaśaḥ*, *sumō* (*sic*) *vēdyō* (see vv. 958, 959) may be suggested.

[461] The commentators to the Aṣṭāṅga Hṛidaya, etc. (see references in note 454) explain this to mean that *Kulattha* should be avoided not only during the actual bitumen-treatment, but for a whole year, or even throughout one's life. The reason given by them is that *Kulattha* is a specific against calculus and gravel, and hence also noxious to bitumen which is of the nature of a stone.

[462] *Pradēyāḥ* should probably be read for *pradēhāḥ*, poultice, of the original text. The latter, which would mean "they should be made into poultices" does not seem appropriate. All the parallel recensions (see note 454) read *prayōjyāḥ*.

[463] The only parallel passage with regard to this chapter, that I have been able to discover, is in AH., VI, 39 [68] (vv. 62-65). It is an altogether different version, but it agrees with our version in giving three kinds of plumbago, black, white and yellow, though it makes the white variety to be better than the yellow. Both agree in making the *kṛishṇa* 'black,' (as the Aṣṭāṅga has it) *sarva* 'not white' variety to be the best. At the present day, only two varieties are recognised, the *śukla* 'white' and the *aruṇa* 'reddish' or *rakta* 'red' (or rather 'rose-red,' 'pink'). The latter is considered the better variety, and would seem to be the same as the 'black' or 'not-white' of the older division; for it is also known as the *kāla* or 'black,' and its root, as '*kāla-mūla*' or 'black root.' But the older three-fold division is puzzling; *kṛishṇa* 'black' seems a strange epithet for a rose-red or pink flower; and no yellow variety appears to be known to exist anywhere to judge from what I can learn from botanists. Of course *kṛishṇa* might be 'dark blue,' but there exists no variety of that colour either. This suggests a doubt whether anciently *caitraka* really signified the plumbago-plant. It should be noted, however, that the season for collecting the yellow variety widely differs from that for collecting the black (pink) and white varieties; for the former it is summer (June-July), for the latter, winter (October to December).

distinguished as remedies against *disorders of the* air, bile, and phlegm. (974*a*) But, indeed, taking them as one may get them, they may be used as remedies against all *diseases.*

(974*b*—975.) One should take them up in the months of Kârttika, or Mârga-śirsha, or Âshâdha.[404] (975) In Kârttika one should take up the black, in Mârga-śirsha, the white, and in Âshâdha, the yellow variety. These are the times of collecting them.

(976.) Having offered a prayer to the Dêvas, and invoked the blessing of Brâhmans, as is proper, and *in a place* where there is no cemetery, nor barren saline soil, nor ant-hill, nor chaitya,"[405] . . . . . .

The Thirty-first Leaf : Obverse.

THE FOURTEENTH CHAPTER : FORMULAE FOR THE TREATMENT OF CHILDREN'S DISEASES.

The KÂŚYAPA Pills.[406]

(I)

(Verse 1011*a*.) (In the case of) . . . . . ., (1011*a*) *the physician* should at once administer one pill to the child.

(II)

(1011*b* and 1012.) In cases of acute diarrhœa of children, the physician should give *to them* a pill. (1012) He should give it in honey mixed with rice-water, and it should be made with the juice of Paróshaka (*Grewia asiatica*) and with sugar and honey.

(III)

(1013 and 1014.) To a child, attacked with vomiting, a physician should give a pill. It should be made with the juice of Guḍûchî (*Tinospora cordifolia*) and with sugar and honey ; (1014) or it may be administered *made* with a clarified infusion of roasted iron-filings, and mixed with sugar and honey. Then *the child* will obtain ease.

(IV)

(1015 and 1016.) In the case of diarrhœa, due to *disordered* blood, the physician should give to the child a pill, made with the juice of the Pañchavalka (or set of five barks[132]), or with rice-water, (1016) mixed with sugar and honey. Or it may be made with the blood of a hare, or of an antelope, or a deer, mixed with honey.

(V)

(1017.) In the case of retention of discharges, the physician should give to the child a pill made with molasses *diluted with* water or the juice of the three myrobalans.[18]

(VI)

(1018.) In the case of fetid diarrhœa, the physician should give to the child a pill made with whey, or with tamarind juice.

[404] Of these three months Kârttika corresponds to 15th October-15th November; Mârgaśirsha, to 15th November-15th December; Âshâdha, to 15th June-15th July.

[405] *Chaitya*, Tibetan *chorten*, would seem to refer to the well-known Buddhist shrines (tombs or relic-places) so called.

All four objects are mentioned in AS., V. 8 (vol. II, p. 166, l. 14).—The remainder of this formula and of the chapter is wanting, with the thirtieth leaf.

[406] I have not been able to trace any of these pill-prescriptions elsewhere. See the following note.

(VII)

(1019—1022.) In the case of gravel, stone, strangury, and morbid secretion of urine the doctor should give to the child a pill, made with honey and clear spirits of rice; (1020) or it may be given, *made* with some suitable medicated liquor.[85] The *child* will then obtain relief; so says Kâśyapa.[407] (1021) By this *means* worms that live in the intestines will be quickly expelled; relief will be given to headache, and vomiting will be checked. (1022) If *the child's* anus is infested with worms, let it be smeared with the pill; then he will obtain relief: such is the dictum of Kâśyapa.[407]

(VIII)

(1023—1025.) In the case of unrecognised diseases let the physician give a pill together with tepid water, such as is a remedy against all diseases. (1024) A doctor who is skilful in diagnosing *the patient's disease* should adopt various kinds of treatment; and having regard to the strength or weakness of the children, and to the time and season, (1025) he should apply the five-fold treatment[408] to their wet-nurses, that is to say, *the two kinds of* purgatives, emetics, and *the two kinds of* oily enemas.

(IX)

(1026 and 1027.) In the case of gripes the physician should give a pill to the child, made with pig's excrement and rice-water, (1027) and he should give with it a draught of sugar and honey.

Thirty-first Leaf: Reverse.

On drinking it, the child will obtain ease: such is the dictum of Kâśyapa.[407]

(X)

(1028.) In cases of hiccough, asthma, and cough the physician should give a pill, made with citron or with sonchal-salt and spices.

(XI)

(1029 and 1030.) To a child which is troubled with worms, the physician should give a pill, made with pomegranate-water, and honey, or with clear spirits of rice. (1030)

[407] Kâśyapa is mentioned in a long list of ancient Indian physicians in Ch., *Ṛ.* 1 (v. 6). In AH., VI. 2[403] (v. 43c) he is called *vriddha-kâśyapa* or the 'old Kâśyapa' or rather 'Kâśyapa the elder.' In that place a formula is ascribed to him for a remedy against children's diseases caused by teething. Similarly *ibidem*, VI, 3[405] (vv. 48b, 49a) a formula of his is quoted for a remedy against *bâlagraha* or 'demoniac seizure of children.' From this it would seem that Kâśyapa (or Kâśyapa as the Ashṭâṅga Hridaya spells the name) was specially a physician for children's diseases. A work called *Kâśyapa Saṁhitâ*, and apparently ascribed to this physician, is noted in Burnell's Catalogue of Tanjore MSS.; see Aufrecht's Catalogus Catalogorum, p. 88. A chapter of some work of this kind, called *bâlachaj-âpakramaṇîya*, has been discovered in the Durbar Library in Nepal; see Dr. Cordier's Récentes Découvertes, p. 2. Ḍalhaṇa in his commentary (Jîv., p. 103) on S., I., 12 (§ 3) quotes a passage from a Muni Kâśyapa. On a story about Mahâkâśyapa, the disciple of Buddha, healing king Ajâtaśatru, see Rockhill's Life of the Buddha, pp. 141, 142.

[408] The *pañcha-vidhâ kriyâ* or shortly *pañcha-karmaṇi*, 'the five-fold treatment,' consists of 1, *vamana* or 'emetics,' 2, *virêka* or 'purgatives,' 3, *âsthâpana* or 'enemas,' 4, *anuvâsana* or 'oily enemas,' 5, *nasya* or 'errhines.' To these as a sixth may be added *śôṇita-môkshana* or 'blood-letting.' Nos. 3 and 4 may be classed together as *anuvâsana* 'enemas,' and thus a different five-fold treatment, inclusive of blood-letting, results; *see note*, note 19. Again, *nasya* or *śirôvirêka*, lit. 'head-purging,' and *virêka* or *kâya-virêka*, lit. 'body purging,' may be classed together under the general term of *virêka* 'purgatives,' and thus the three-fold classification results which is named in our text. See AH., IV, 7[398] (v. 100), also I, 14[394] (v. 55).

He may also give errhines, linctuses, and spiced vegetable dishes, also a gruel may be given as light food.

(XII)

(1031.) In the case of severe jaundice or other kinds of morbid pallor[7], and of swellings, the physician should give a pill made with a decoction of Pilu (*Salvadora persica*).

(XIII)

(1032 and 1033.) In the case of diphtheria, inflammation of the palate,[669] goitre, and ranula, *the physician* should give the *preceding* pill[670] in the form of a pulver and he should press the gums *with his fingers*. (1033) In this way the child's teeth grow with ease, and its swelling is reduced; its diseases also are relieved, and it returns to health.

(XIV)

(1034—1036.) In the case of ringworm, skin-diseases, leucoderma, eczema, psoriasis, and *in short* in *all* diseases which have their seat in the skin, the physician should give a pill, (1035) *made with* powders of Kampilya (*Mallotus philippinensis*), and afterwards smear the patient with powders of Guḍikâ (*Abrus precatorius*) rubbed into a paste with mustard-oil,[671] (1036) and douche him with cow's urine in a tepid state, or with the juice of Khadira (*Acacia Catechu*), or with a decoction of nim. Then *the patient* will become well.

(XV)

(1037 and 1038.) To a child which is attacked by any morbid change in its appearance[672] by the Pûtanâ demon, or by any other demoniac possession, *the physician* should give the *preceding* pill[670] made up with goat's urine, (1038) or he should plaster it with the pill powdered and made into a paste *with the urine*. Then any demoniac possession, very violent though it be, will be relieved.

(XVI)

(1039 and 1040.) In the case of severe pains in the side, the physician should give a pill to the child, made up with a decoction of Kulattha (*Dolichos biflorus*), or with the broth of meat. (1040) By depurating the wet-nurse's system, her humoural disorders,

[669] For a definition of *tálutáluka*, see AH., VI, 21 (v. 41a).

[670] As no drugs are specified, which would form the substratum of the pill, or powder, it is probable that the pill prescribed in the preceding verse, is intended, see also verse 1037.

[671] The construction of this verse is somewhat obscure. But the repetition of *ekárthatá* seems to indicate two different applications of powders, internal and external. The Abrus precatorius is poisonous, and in skin-diseases is applied externally; see Mat. Med., p. 151. The prefix *anu* shows that the anointing follows the administration of the pill.

[672] On *chhâyâ* or 'morbid appearance' see Ch., V, 7 [305] (vv. 1 ff.), S., I, 31 [117] (and the commentary on it by Dalhana Miśra), AH., II, 5 [228] (vv. 42-53a). The word has several meanings. In its widest sense it signifies the general appearance of a person, in point of figure, size, colour and lustre; and any morbid or unnatural change in these respects is an indication of approaching death. The 'reflection' of one's appearance with regard to *samsthâna* or 'figure' and *pramâna* or 'size' as cast in sunshine, water or a mirror, is called *pratichchhâyâ*. *Chhâyâ*, in a narrower sense, is distinguished from it as the appearance of a person in point of *varṇa* or 'colour,' and *prabhâ* or 'lustre.' Thirdly, *chhâyâ* signifies the mere *varṇa* or 'colour' (as different in kind: *viz.*, red, yellow, white, blue, green, fallow, and black, altogether seven), as distinguished from its *prabhâ* or 'light' or 'lustre.' The presence of 'colour' can be recognized from a distance by its 'light,' but whether it is of this or that variety (red, yellow, etc.) can only be distinguished when near. Finally, *chhâyâ* is used in the sense of 'morbid appearance' just as *tṛishṇâ* 'third' has also the sense of 'morbid thirst.'

even if severe, are relieved and the child quickly recovers strength and colour.

(Other Formulae.)

(I)

(1041.) [42]If a child is in terror, or cries excessively, give it a linctus of the three myrobalans[35] and long pepper made up with honey and clarified butter.

(II)

(1042 and 1043.) [39]If discoloured round spots appear on the body of *a child, the physician* should apply plasters made of pastes of the set of ten roots[108], mixed with clarified butter, (1043) or of pastes of Punarnavâ (*Boerhaavia diffusa*), or of liquorice; he should also give *to the child* frequent douches of tepid water.

(III)

(1044 and 1045.) [39]If a child, born within ten days, cries and is troubled with cough or asthma, *the physician* should give to it a decoction of *seeds of* Karkaṭaka (*Momordica cochinchinensis*) and (1045) salt with long pepper, and *lime from* snail-shells or bivalve-shells.

Thirty-second Leaf: Obverse.

Or *the same* may be given well boiled in an infusion of Vâla (*Pavonia odorata*).

(IV)

(1046—1048*a*.) [39] If a child suffers from fever, *the physician* should purify the mother's milk, and *for this purpose* administer a decoction of . . . . . ., (1047), also Uśîra (*Andropogon muricatus*), Bhadramustâ (*Cyperus rotundus*), and Trayamâṇâ.[46] External applications also of sandal-wood paste, liquorice with sugar, (1048*a*) and clarified butter medicated with the drugs of the Jîvanîya-class[109] are beneficial.

(V)

(1048*b*—1054*a*.) [39] For a child which is weak and growing thin, (1049) I will now explain a method of preparing an approved and excellent remedy which shall promote the growth of its body, its strength and colour. (*a*) Kuśa (*Poa cynosuroides*), Kâśa (*Saccharum spontaneum*), Uśîra (*Andropogon muricatus*), raisins, and filaments of the lotus:—(1050) milk boiled with these and *mixed* with sugar should be given to a weak child; (*b*) or clarified butter boiled with these and with the drugs of the Jîvanîya-class[109] may be rubbed on it. (1051) (*c*) Or milk boiled with Madhuparṇî (*Tinospora cordifolia*) may be administered to it. Or (*d*) take Tarkârî (*Sesbania Ægyptiaca*), lotus, rock-salt, madder, sesamum-seeds, (1052) seeds of the prickly chaff-flower, Kushtha (*Saussurea Lappa*), and powders of emblic myrobalan, also Aśvagandhâ (*Withania somnifera*), Chavâ (*Piper Chaba*), Priyaṅgu (*Aglaia Roxburghiana*), and white mustard-

[42] This formula, in another recension, occurs in V., LXIX [67] (v. 88).

seeds[47] : (1053) mix equal parts of all these with curds, and then apply this most excellent liniment to a child which is falling off in flesh ; (1054*a*) and when it is well rubbed over with it, bathe it in a drôṇa[3] of well-cooled milk.

(VI)

(1054*b*—1059*a*.) [16] Further, if a child suffers of asthma or cough, and feels very hot (1055) let the following linctuses and potions be given to it : (*a*) powders of Kaṭphala (*Myrica sapida*), ginger, long pepper, chebulic myrobalan, (1056) and rock-salt, made into a linctus with honey and clarified butter ; (*b*) or Harêṇukâ (*Piper aurantiacum*), long pepper, small cardamoms, Durâlabhâ (*Athagi maurorum*), (1057) and raisins, powdered and made into a linctus with honey and clarified butter; (*c*) or Kushṭha (*Saussurea Lappa*), orris-root[12], ginger, chebulic myrobalan, (1058) rubbed into a paste and made into a potion with warm water ; (*d*) or Bhadramustâ (*Cyperus rotundus*), asafœtida, Tagara (*Tabernaemontana coronaria*), and *Chôraka (*Trigonella corniculata*), (1059*a*) rubbed into a paste and made up into a potion with tepid water. These are remedies against cough.

(VII)

(1059*b* and 1060*a*.) [19] Lac, turmeric, madder, long pepper, and deodar :—(1060*a*) these, made into powder and mixed with clarified butter, make a remedy against cough.

(VIII)

(1060*b*—1064*a*.) (*a*) [21] To a child which is troubled with morbid thirst, has a sad face, and is withering, (1061) bitter apples and pomegranate mixed with water should be administered. Or (*b*) a paste made of powdered Priyaṅgu (*Aglaia Roxburghiana*) and Bhadramustâ (*Cyperus rotundus*), (1062) and added to rice-water, may be given to it mixed with honey. Or (*c*) obtain roasted rice and Bhadramustâ (*Cyperus rotundus*), and having carefully crushed it, mix it with honey in a new earthen vessel, and when it has cleared, let it be drunk by *a child* suffering from morbid thirst and vomiting. [47a] Or (*d*) (1064*a*) *the child* may take a draft of honey-water

Thirty-second Leaf : Reverse.

or also . . . . . .

(IX)

(1064*b*—1066*a*.) [26] Aśvagandhâ (*Withania somnifera*), resin of the sâl-tree, barley-flour, and curds, (1065) mixed with honey and clarified butter, make a plaster to be placed on the scalp, as a remedy against morbid heat, morbid thirst, vomiting, and every *other kind of* disease. (1066*a*) This may be applied, whenever a very cooling treatment is required.

[47] *Gaura-sarshapa, or śvêta-sarshapa*, also called *siddhârtha*, 'white mustard' (Brassica campestris) is milder than the dark-brown variety, and is therefore prescribed for children. On the two (or four) kinds of Indian mustards, see Mat. Med., p. 114, Phar. Ind., vol. I, pp. 122-125. See also *ante*, note 220.

[47a] I read *chatureś* (or *châturś*), 'quick,' 'clever,' for *chaturôś* of the original text, which yields no intelligible sense. There are not four ingredients in the formula, but only two ; the two missing syllables probably belong to the mutilated verb, which looks like *ranat*, but may be *sanat*, obtains. Moreover, *chaturôś* suggests a tota. sing., agreeing with *chanâ* and *piṣṭî*. The term *parilaṣṭa* 'roasted' or 'fried' is objected to by Kavirâj Hêmâd Bihârî Gupta, who informs me that such rice is not made use of in children's diseases. The reading in our Manuscript, however, is perfectly clear, though, of course, there might be some clerical error.

(X)

(1066*b*—1067*a*.) [10] If boils appear on a *child's* body and a sensation of burning, (1067*a*) it should be treated with cold decoctions made of bitter and sweet drugs.

(XI)

(1067*b* and 1068*a*.) [10] Further, powder of Parpaṭaka (*Oldenlandia corymbosa*), Uśīra (*Andropogon muricatus*), and red ochre:—(1068*a*) equal parts, taken of all these and rubbed into a paste, make a beneficial ointment.

(XII)

(1068*b* and 1069*a*.) [10] Saugandhika (*Andropogon muricatus*), sugar, and filaments of the white lotus, (1069*a*) also sandal and madder, make an ointment for children.

(XIII)

(1069*b* and 1070*a*.) [10] Sugar-water, bivalve-shells, conch-shell, Śâdvala (*Cynodon dactylon*), and Vêtasa (*Calamus rotang*):—(1070*a*) a plaster made up of these is a remedy against boils.

(XIV)

(1070*b* and 1073*a*.) [10] In the case of suppuration of the mouth, apply to it a plaster of raisins mixed with honey; (1071) or clean the *patient's* mouth with rasot and honey; and if the child, on account of the sore mouth, refuses the mother's breast, (1072) dress it with sprouts of Sumanâ (*Jasminum grandiflorum*) and honey, or a paste may be applied made of pulverised stalks of Śara (*Saccharum spontaneum*), and Mashi (*Nardostachys Jatamansi*), (1073*a*) and when the mouth is seen to be clean, it should be dressed with clarified butter.

(XV)

(1073*b*—1075*a*.) [10] Next: (*a*) having made a paste of the flowers of Dhâtakî (*Woodfordia floribunda*) and Sallakî (*Boswellia serrata*), also of Jinganî (*Odina Wodier*), (1074) Samaṅgâ (*Mimosa pudica*), and Rôhiṇî (*Picrorrhiza Kurroa*), boil it in oil. Then apply it, in the case of otorrhea, deterging *the ear* repeatedly. (1075*a*) (*b*) Also oil in which bêl and sandal has been boiled is beneficial for filling into the ear.

(XVI)

(1075*b*—1077*a*.) [10] Boiled with a paste of bêl and with the juice of the wood-apple,[476] (1076) milk or oil may be applied to the ear as a detergent of its (external) passage.

[476] *Bilva-kalkaṁ vipakvaṁ* is a loose construction or clerical error for *bilva-kalka-vipakvaṁ*. The meaning is *bilva-kalkêna cha kapitthasya rasêna cha vipakvam.*

(*b*) Also all aromatic drugs [477], boiled *similarly*, are recommended in the case of fetid discharges from the ear, (1077) (*c*) also fumigations [478] of the deterged *ear* with Indian bdellium. [479]

(XVII)

(1077*b* and 1078*a*.) [10] (*a*) Into the ears *of a child* suffering from a disease in it, a wise *physician* will pour some of the Gandha-oil.[477] (1078*a*) (*b*) The tepid juice of radishes, also makes a remedy for filling into the ear.

(XVIII)

(1079.) [480]Galls of Kullra (*Pistacia integerrima*), black pepper, fried paddy, Madhûlikâ (*Sanseviera zeylanica*), white cumin, and antimony; also liquorice and honey *boiled* in a fresh potsherd with oil, is declared to make a remedy for *children* afflicted with emesis.

(XIX)

(1080.) [10]Long pepper, sugar, fried paddy, liquorice, black pepper, bamboo-manna, and honey make a linctus as a remedy against emesis.

(XX)

(1081.) [480]Bhârgî (*Clerodendron Siphonanthus*), long pepper, Pâthâ (*Stephania hernandifolia*), Payasyâ (*Gynandropsis pentaphylla*),

together with honey, may be used as a linctus against emesis due to deranged phlegm. So says Jîvaka.[482]

[477] The Gandha-oil will be found in S. IV, 3 [324] (vv. 585-64) and AH., VI, 27 [319] (vv. 36-41). It is not given in the third chapter of our work among the medicated oils. It is made by boiling all the drugs of the so-called *gandha*-class or class of 'aromatic drugs,' in sesamum-oil. The Gandha-class is also called the Elâdi-class, or the class which commences with *Êlâ* or 'cardamons,' which will be found enumerated in the AH., I, 15 [129] (vv. 43, 44). See also *ante*, note 145, and Part I, note 28. But it is possible that in the present case there is no reference to any established formula for an aromatic oil.

[478] On the method of *paridhûpana* or 'fumigating' see Mat. Med., p. 21.

[479] *Aksha-guggulu* is the same as *Mahâkâksha-guggulu* in BN., XII, 104, or *Mahâcha-guggulu*, Phar. Ind., I, 310, the gum resin of the Balsamodendron Mukul.

[480] Compare the formula in V., LXIX [324] (v. 69) which only substitutes *Nîld* 'turmeric' for *Madhûlikâ* and ginger; also *Krishnâ*, black cumin, for *Mâgadhikâ*, white cumin.

[481] Compare the formula in V., LXIX [324] (v. 68), which, however, substitutes *Nâgara* 'dry ginger' and *Maricha* 'black pepper' for *Payasyâ*.

[482] Jîvaka is the well-known famous physician of Buddha's time. For an account of his history see the Mahâvaggo, Chap. VIII (Transl. in the Sacred Books of the East, Part II, pp. 171 ff.), Hardy's Manual of Buddhism, chap. VII, § 20, p. 244, and Schiefner's Tibetan Tales, chap. VI, p. 91 ff. The two accounts differ in minor points of detail, the most important of which is that according to one he was an illegitimate son of Abhaya, and grandson of king Bimbisâra, while according to the other he was an illegitimate son of king Bimbisâra himself and a younger brother of prince Abhaya. He was the court-physician of king Bimbisâra, and is said to have studied medicine in Takshasîlâ (in the Panjâb) under the famous physician Atreya (see Part I, note 4). Many wonderful cures, performed on grown-up persons, are related of him; but none with reference to children. But he bore the name or title of *Kumârabhritya* (Pâli *kûmâra-bhachcho*), *i.e.*, 'children's doctor,' which clearly indicates him as having been particularly skilful in the treatment of children's diseases; and this circumstance is supported by the formulæ, here attributed to him, which present themselves as giving his *ipsissima verba*. In Rockhill's Life of the Buddha p. 66, he is related to have rescued a babe from the burning funeral pyre of the pregnant mother, and on p. 63, to have treated Buddha for a dangerous wound in his foot. Ibidem, p. 64, he is called *kumâra-bhanja*, because of being provided for by the prince (*kumâra*) Abhaya.

(XXI)

(1082.) [19]Deodar, Kushṭha (*Saussurea Lappa*), chebulic myrobalan, and rock-salt with clarified butter, may be used as a linctus against *emesis* due to derangement of the air-humour.

(XXII)

(1083.) [19]. . . . . , together with long pepper make a linctus which quickly stops emesis.

(XXIII)

(1084.) [403]If diluted cow-dung be added to the set of four spices,[404] and used as a linctus with honey, the patient will be delivered from emesis.

(XXIV)

(1085.) [405]Powders of long pepper and black pepper, together with honey and sugar, may be used, with the juice of citrons, as a remedy against emesis.

(XXV)

(1086 and 1087.) [19]Take young shoots of the mango and jâman trees, and of the trees with a milky sap[122], also Payasyâ (*Gynandropsis pentaphylla*), root of Śârivâ (*Ichnocarpus frutescens*), madder, and plumbago root, (1087) and having boiled the whole, give it, mixed with honey and sugar as well as with the set of three spices[404], to the *sick* child to drink as a cordial and remedy against emesis and diarrhœa.

(XXVI)

(1088.) [406]Root of the bêl-tree, boiled and mixed with powders of fried paddy, may by a child be taken, made up into a linctus with sugar and honey, in the case of worms and emesis.

(XXVII)

(1089.) [19]Cardamoms, asafœtida, Bhârgî (*Clerodendron Siphonanthus*), ginger, and rock-salt, taken with clarified butter, as a potion, will quickly cure severe pains due to *deranged* air.

(XXVIII)

(1090.) [19]White sesamum-seeds[320], liquorice, mixed with sugar, oil and honey, and taken as a linctus, puts a stop to the flux of a child which passes blood.

(XXIX)

(1091 and 1092a.) [19]Liquorice, paste of sesamum, sugar, honey, mixed with rice-

[403] This formula, in another recension, occurs in V., LXIX [318] (v. 67).

[404] See *ante*, Part I, note 28.

[405] This formula, in another recension, occurs in V., LXIX [319] (v. 73), where, however, *Madhuka* 'liquorice' is substituted for *Marîcha* 'black pepper.'

[406] This formula, in another recension, omitting honey, occurs in V., LXIX [321] (v. 49).

water, may be given, with honey and sugar, to children in a case of bloody diarrhœa; they will then obtain relief.

(XXX)

(1092*b*—1094*a*.) [467]Take calyxes of the banyan-tree, Ródhra (*Symplocos racemosa*), *fruits of* Kárshmarya (*Gmelina arborea*), and sugar; (1093) also liquorice, bél-root, Samaṅgá (*Mimosa pudica*), Aṁśumatí (*Desmodium gangeticum*), Valá (*Sida cordifolia*), with flowers of the red silk-cotton tree, Príśniparṇí (*Uraria lagopodioides*), and Dhátakí (*Woodfordia floribunda*). (1094*a*) Clarified butter medicated with these quickly stops dysentery.

(XXXI)

(1094*b* and 1095*a*.) [468]Cinnamon, Ródhra (*Symplocos racemosa*), and superior emblic myrobalans: (1095*a*) equal parts of these, powdered and mixed with honey, make a mouth-wash.

(XXXII)

(1095*b* and 1096*a*.) [469]Turmeric, nim-leaves, liquorice, honey, and blue lotus:—(1096*a*) with these, as well as with Márkava (*Eclipta alba*), oil may be boiled *for use* in the case of suppuration of the mouth.

(XXXIII)

(1096*b* and 1097*a*.) [470]Astringent drugs with honey, and powders of the three myrobalans, (1097*a*) are recommended in cases of suppuration of the mouth, *to be used* as washes and emetics.

(XXXIV)

(1097*b*—1099*a*.) [471]*Take* the two Vṛihatí[78], the castor-plant, Śvadaṁshṭrá (*Tribulus terrestris*), both Vásaka [468], (1098) ginger, barley-corns, Darbha (*Imperata cylindrica*), Vṛikshádana (*Ficus religiosa*), and boil them in milk together with long pepper and clarified butter. (1099*a*) This may be given in cases of spasms in the chest. So says Jívaka.[472]

(XXXV)

(1099*b*—1101.) [473]The lesser set of five roots[105], Kulattha (*Dolichos biflorus*), jujubes, (1100) rock-salt, ... , cinnamon-leaves, Grâha (*Marsilea quadrifolia*) with clarified butter, the two Karañja[175], Darbha (*Imperata cylindrica*) *leaves of* the cotton-plant and Madhuśigru (*Moringa concanensis*), also (1101) Śvadaṁshṭra (*Tribulus terrestris*), Vasuka (*Sesbania grandiflora*), and leaf-stalk of the lotus, with blue lotus:—a draught prepared from these may be taken

Thirty-third Leaf: Reverse.

as a remedy against . . . . . .

(XXXVI)

(1102 and 1103*a*.) [474]Take . . . . . , sugar and . . . , long pepper, rock-salt, small cardamoms and black pepper-corns, (1103*a*) and make them, with sugar and honey, into a linctus *as a remedy against* . . . . . .

[467] Compare the formula in AH., VI, 2 [43] (vv. 41-43*a*) which is ascribed to a *Vriddha-Kaśyapa* or 'Kaśyapa the elder.' See *ante*, note 467.

[468] That is, the white and black varieties, the *Justicia Adhatoda* (or *Adhatoda Vasica*) and *Justicia picta*. See Phar. Ind., vol. III, pp. 49, 50.

(XXXVII)

(1103*b*—1105*a*.) [499]Boil . . . . . , with jujubes and wheat, (1104) seeds of Kulattha (*Dolichos biflorus*), and Madhuśigru (*Moringa concanensis*); then the decoction of these *drugs* prepared with a little grease from a partridge, sonchal-salt, and . . . . (1105*a*) is recommended *as a remedy* in cases of gravel and . . . . . .

(XXXVIII)

(1106.) [500]Tender shoots of the jâman, wood-apples, and shoots and buds of Vaṭa (*Ficus Bengalensis*) :—oil, boiled with these, is said to be beneficial in otorrhea *and* . . . . . .

(XXXIX)

(1107.) [501] . . . . . and seeds of Avalguja (*Vernonia anthelmintica*), mixed with powdered long pepper, fruit of Vṛihatî (*Solanum indicum*), black pepper, baberang, and white oleander :—these are said to make a remedy against worms.

(XL)

(1108 and 1109.) Kushṭha (*Saussurea Lappa*), turmeric, and the fruit of . . . . . , made into a paste, are said to make an embrocation, beneficial as a remedy against scabies. (1109) [502]*In fact* against leucodermic diseases [277], ringworm, keloid, eczema, and every kind of skin-disease . . . . . of children who are treated with it, this is always recommended as a remedy.

(XLI)

(1110 and 1111.) [503]Boil the leaf-stalks, roots, and root-stalks of the blue lotus, shoots of the trees with a milky sap[132], ginger, roots of Darbha (*Imperata cylindrica*), Uśîra (*Andropogon muricatus*), and Indian sorrel in clean water. (1111) Mixed with sugar and honey this makes an excellent *agent for the* relief of morbid thirst.

(XLII)

(1112.) [504]*The before-named parts of the* blue lotus,[505] emblic myrobalan, Priyaṅgu (*Aglaia Roxburghiana*), and Śârivâ (*Ichnocarpus frutescens*) :—a paste made of these *and administered* to children *is a remedy against morbid thirst.*

[499] Compare the formula in Ch., VI, 26[148] (vv. 44, 45), also S., IV, 7[458] (v. 5), AH., IV, 11[288] (v. 2) and IV, 11[294] (v. 19), in all of which *Kulattha*, *Kôla*, and *Yava* are mentioned together as remedies against stone and gravel. Accordingly I read, in our text *kôla-yavaiḥ* instead of *kôla-yavaiḥ*, which, however, if correct, might mean 'barley of the season,' *i. e.*, fresh ripe barley. But the correct reading of the whole formula is open to doubt; for *kulpita* also may be wrong for *kulkita*, which occurs in the AH., and Ch. has *kulka*.

[500] Verse 1109 is marked in the original text with annular sectional marks. It has every appearance of having been originally a mere marginal gloss, amplifying the short formula in v. 1108. Afterwards it would seem to have been transferred by a scribe into the body of the text, and marked off as an addition.

[501] This formula, in a slightly altered recension, substituting *âmra-jambu-prarôhâṇi* 'shoots of the mango and jâman trees' for *nâlôtpalâdâṇi nasâṇi* or 'stalks of the lotus,' occurs in V., LXIX [64] (vv. 81, 92). The third hemistich is there given thus: *darbhâḍ-mâlî-gird-chakra-vêtasîtâni jalâsu ca*. This yields no sense, but, to judge from similarity of letters, suggests the reading which I have adopted in the text, p. 76 (*viz.*, *darbha-mâl-âśira-chakra*). The same parts of the blue lotus seem to be intended by the plur. *nâlôtpalâni* in v. 1112.

(XLIII)

(1113.) [482]Seeds of pomegranate, sandal, filaments of the lotus, long pepper, sugar, and honey make a linctus for the cure of morbid thirst.

(XLIV)

(1114—1118.) [10]Having collected bark and shoots of the (five) trees with a milky sap[152], ... , place them in a new jar . . . . in an open place, (1115) and mix them with Śârivâ (*Ichnocarpus frutescens*) and Uśîra (*Andropogon muricatus*), or Nâgapushpa (*Mesua ferrea*), or sandal, or Padmaka (*Prunus Puddum*) and Kâla (*Cassia Sophera*), stirring up *the whole* with leaves of the blue lotus, together with . . . . . (1116) With a decoction of these the child's body should be washed, and it should also drink it, when it has become sufficiently cold, with an infusion of Lava (*Andropogon laniger*)[483] and with sugar, but strictly without salt and anything sour[484]. (1117) Cold plasters *also* . . . . . and cold rooms, and nurses wearing cold and damp garments [485], and cold broths[295] serve to relieve morbid thirst. (1118) The remedies against morbid thirst, here set forth, also serve to relieve the heat of fever due to *deranged* bile. Mûrvâ (*Sanseviera zeylanica*) *and* . . . . . may also be administered in such cases.

(XLV)

(1119.) [486]Asafœtida, galls of Karkaṭa (*Pistacia integerrima*), red ochre, black pepper, dry ginger, *and* cardamoms:—these, made up with honey, *are a remedy* in the case of cough and hiccough.

THE FIFTEENTH AND SIXTEENTH CHAPTERS, desunt.[487]

[482] Compare the formula in V., LXIX [201] (v. 53). The only difference is that there *Jîraka*, 'cumin,' is substituted for sandal, and that long pepper is omitted.

[483] *Lâva* is derived from *Lava*, which, according to the RN., is a synonym of *Lâmajjaka* (Andropogon laniger) as well as *Lavaṅga* (Caryophyllus aromaticus). Both are said to have cooling properties, and to be used internally as a drink in thirst and fever, and externally as paste rubbed on the skin to relieve oppressive heat of the body; see Mat. Med., pp. 164, 270, Pharm. Ind., II, 20, III, 582.

[484] The meaning is that the decoction should be given to the child, both as a wash as well as a drink; only in the latter form it must be given quite cold.

[485] With regard to this direction about the contact with cold and damp things, compare the formula in Ch., VI, 24 [79] (vv. 36, 37).

[486] Compare with this the formula in V., LXIX [203] (v. 66), which only substitutes ginger for black pepper and cardamoms.

[487] The remainder of this work, containing the fifteenth and sixteenth chapters, concerned with the treatment of barren and prolific women, as well as perhaps the concluding portion of the fourteenth chapter, is wanting. It may have consisted of about five leaves.

THE BOWER MANUSCRIPT.

APPENDIX TO PART II.

The Harîtakî-Kalpa of the Âśvina-Saṃhitâ, edited from the two Manuscripts in the possession of Dr. P. Cordier,—(see note 439).

(A.)—Shorter Recension, in 27 Verses.

Dharaṇyâṁ nipatad-bindhuḥ Śakrasya pibato 'mṛitât | pavamânasya yôgêna vikîrṇaḥ saptadhâ bhavêt || 1 || Yatra yatr=ôpadaśaṁkhâśa-tu[1] dêśêshv-amṛita-bindavaḥ | tatra tatra samutpannâ saptа-bhêdâ harîtakî || 2 || Vijayâ Rôhiṇî c=aiva Pṛithu-nâmâ[2] tath=Âmṛitâ | Jîvantî, Trivṛitâ tad-vad=Abhayâ c=êti saptadhâ || 3 || Alâbu-grîvâ Vijayâ, chaturaṅgî tu Rôhiṇî | śushka-tvak=Pṛithunâmâ cha, mâṁsalâ ch=Âmṛitâ tathâ || 4 || Suvarṇâ-varṇâ Jîvantî, pañchâṅgî Trivṛitâ smṛitâ | Abhayâ kṛishṇa-varṇâ syâd=ity=êtâḥ saṁprakîrtitâḥ || 5 || Vijayâ vâta-rôgêshu, Rôhiṇî saṁnipâtikê | paittikê Pṛithunâmâ cha, ślaishmikê ch=Âmṛitâ tathâ || 6 || Arîo-vikârê Jîvantî, Trivṛitâ vraṇa-rôpaṇî | Abhayâ sarva-rôgêshu prayôjyâḥ syur=yathâ-yatham || 7 || [2]Vijayâ Vindhya-dêśêshu, Kanyâkubjêshu Rôhiṇî | Saurâshṭrê Pṛithunâmâ cha, Gaṅgâyâs-tv=Amṛitâ tatê || 8 || Kâśmîra-dêśê Jîvantî, Trivṛitâ Himavad-giraṇ | Abhayâ Vainya-dêśêshu jâtâ ch=aiva Harîtakî || 9 || Tvag-âśritaṁ tu kaṭukaṁ=amlaṁ snâyv-âśritaṁ viduḥ | Mâṁs-âśritaṁ kashâyaṁ tu, tiktaṁ tv=int-âśritaṁ tathâ || 10 || Majj-âśritaṁ tu madhuraṁ=êvaṁ pañcha-rasâḥ sthitâḥ | haraṇât-sarva-rôgâṇâṁ yasô-yuktâ harîtakî || 11 || Pathyatvât=sarva-bhûtânâṁ pathyâ, śivatayâ śivâ | yasmâd=vijayatê vyâdhîn=samagrân[3] Vijayâ tathâ || 12 || Abhayaṁ sarva-bhûtêbhyô bhavaty=âyaś-cha śâśvatam | yaśaḥ-śîlatayâ têshâṁ[4] tên=aivaṁ=Abhayâ smṛitâ || 13 || Tîra-jâ vana-jâś-[5] chêṭî pârvatîyâ iti tridhâ | yath-ôttaraṁ pathyatamâ vijñêyâs-tri-vidhâs-tu sâḥ || 14 || Dvi-karsha-mâtraṁ karshaṁ cha tad-ardhaṁ cha bhavêd-yadi | uttamaṁ madhyamaṁ nichaṁ harîtakyâḥ phalaṁ smṛitaṁ || 15 || Jantu-dashṭaṁ jalê viddhâṁ lînâṁ paṅkê 'thavâ jalê | antar-majja-vinirmuktâṁ parikṣâṁ rasa-varjitâṁ || 16 || Ûsharê cha sthitâṁ bhinnâṁ varjayêt-tâṁ harîtakîm || 17a || Kupitaṁ pavanaṁ guḍa-taila-yutâ[7], ghṛita-śarkarayâ saha pittaṁ-apî | madhu-pippalibhiḥ kupitaṁ tu kaphaṁ, śâmayêch-chhâmayêch-chhâmayêd=Abhayâ || 18 || [Unmi]lanî[8] budhi-tal-êndriyâṇâṁ, saṁmîlanî pitta-kaph-ânîlânâṁ | saṁśôdhanî mûtra-śakṛin-malânâṁ, Harîtakî pathyatamâ narâṇâṁ || 19 || Jîrṇê pathy-âjîrṇê 'pathyâ jîrṇ-âjîrṇê pathy-âpathyâ | bhuktê pathy-âbhuktê 'pathyâ bhukt-âbhuktê pathy-âpathyâ || 20 || Grîshmê sâmya-guḍâṁ samâna-lavaṇâṁ vâgh-âvanaddh-âmbarê | śarddhaṁ śarkarayâ [śarady-amalayâ[9] śuṇṭhyâ tushâr-âgamê || 21 || Pippalyâ śiśirê vasanta-samayê kshaudrêṇa saṁyôjitâm | râjan=prâpya harîtakîm=iva gadâ naśyantu tê śatravaḥ || 22 || Śrîman-n-âyushmantaṁ vitaraṇ kamal-âsana-priyaṁ cha Harîḥ | bhava-bhaya-vinâśam-Îśas=tava dadyâd-rôga-vijayaṁ cha[10] || 23 || Gurûṇâṁ saptakaṁ[11] dadyâd=abhishiktô tu pañchakam[11] | shaṭkaṁ baḍiśê, trayaṁ râjñâḥ pathyaṁ[12] dadyâd=bhishaktamaḥ || 24 || Trayaṁ tri-dôsha-śamanaṁ, pañchakaṁ[11] ch=êndriya-pradaṁ | saptakaṁ[11] sapta-dhâtv-artham=iti vyaktâ[13] harîtakî || 25 || Harîṁ harîtakîṁ ch=aiva gâyatrîṁ cha divê divê | môksh-ârôgya-tapah-kâmî chintayêd=bhaksha yêj-japêt || 26 || Harîtakî manushyâṇâṁ mât=êva hita-kâriṇî | kadâchit-kupyatô mâtâ n=ôdara-sthâ harîtakî || 27 ||

Translation.

[Verses 1-5.] Any drop of the nectar which Śakra (*i.e.*, Indra) was drinking, falling on the earth, was by contact with the wind, transmuted in seven ways. (2.) Wherever, in any country, the drops of nectar were caught up, there chebulic myrobalan grew up of seven kinds. (3.) Vijayâ, Rôhiṇî, Pṛithunâmâ, Amṛitâ, Jîvantî, Trivṛitâ, and Abhayâ: these are the seven kinds. (4.) Bottle-gourd-necked is Vijayâ, four-

[1] MS. *śpadaśatêd ta.* [2] So MS.; perhaps read *Pṛithu-nâmâ.* [3] Verses 8, 9 in Hârîta-kalpa I. 10,12. [4] MS. *samagrash.* [5] MS. *Ilatayâdi bhêdê.* [6] MS. *sanasâd.* [7] MS. *yutah.* [8] Or *prajodîtaś*, missing in MS. [9] MS. *sarad-vimalayâ.* [10] Conjectural; the MS. reading is corrupt, *triyaṁ* for *priyaṁ*, and *vijayâ-rôgaṁ-jayaṁ cha* for *dadyâd*, *etc.* [11] MS. *saptamaṁ, pañchamaṁ, shaṣṭhaṁ.* [12] MS. *râjaḥ pathyâtha.* [13] MS. *ity-uktâ.*

limbed is Rôhiṇî, dry-skinned is Pṛithuṇâmâ, and fleshy is Amṛitâ; (5.) gold-coloured is Jîvanti, five-limbed is Trivṛitâ, dark-coloured is Abhayâ: thus they are distinguished.

[Verses 6-7.] For diseases due to *disordered* air, Vijayâ; for those due to all three humours combined, Rôhiṇî; for those due to bile, Pṛithuṇâmâ; and for those due to phlegm, Amṛitâ; (7.) for pile-complaints, Jîvanti; for granulating wounds, Trivṛitâ; for all diseases Abhayâ: for these purposes respectively *the seven kinds* should be administered.

[Verses 8-9.] Vijayâ, in the Vindya ranges; Rôhiṇî, in the tracts of Kanauj; Pṛithuṇâmâ, in Saurâshṭra; and Amṛitâ, on the banks of the Ganges; (9.) Jîvanti, in the Kashmir country; Trivṛita, in the Himâlaya mountains; and Abhayâ, in the tracts along the Vêṇa river: in these, the chebulic myrobalan grows.

[Verses 10, 11.] Pungency resides in its bark (lit. skin), sourness in its fibres (lit. sinews), astringency in its pulp (lit. flesh), and bitterness in its buds; (11.) but sweetness in its marrow: it thus possesses five tastes. From the fact of its removing all diseases, it is famed as Haritaki (or the Remover.)

[Verses 12, 13.] On account of its wholesomeness for all beings it is *called* Pathyâ (or the Wholesome); on account of its auspiciousness, Śivâ (or the Auspicious), and because it overcomes all diseases, it is Vijayâ (or the Overcomer). (13.) It is *a cause of* fearlessness to all beings, and of perpetual life, through its zeal for their glory: therefore it is called Abhayâ (or the Fearless).

[Verses 14-17*a*.] It grows in three places, on river banks, in forests, and on mountains: and in that order these three kinds should be considered most effective as a remedy. (15.) According as the fruit of chebulic myrobalan is given in a dose of two karshs, or one karsha, or half a karsha, it is said to be superior, or middling, or inferior. (16.) Chebulic myrobalan, which is bitten by an animal, or damaged in water, or rotting in mud or water, or wanting its inner marrow, or old, or devoid of juice, (17*a*.) or lying on saline soil and split, such should be discarded.

[Verses 18-23.] When joined with molasses and oil, chebulic myrobalan (*abhayâ*) relieves vitiated air-humour; and together with clarified butter and sugar, it relieves bile; but with honey and long pepper, it relieves vitiated phlegm. (19.) It opens up the intellect and the senses, it closes up *the excessive flow of* bile, phlegm and air; it clears out urine, faeces and (other) waste products: *all this* does chebulic myrobalan (*Haritaki*) most effectually for men. (20.) When digested, it is remedial; when not digested, it is not remedial: when indifferently digested, it is indifferently remedial. When eaten, it is remedial; when not eaten, it is not remedial; when eaten indifferently, it is indifferently remedial. (21.) In the summer, if mixed with an equal quantity of molasses; in the season when the sky is overcast with clouds, with an equal quantity of salt; in the autumn, with half the quantity of sugar; on the arrival of cold, with pure dry ginger; (22.) in the early spring, with long pepper; in the later spring, with honey of the small bee;—Oh King! if chebulic myrobalan be thus taken, then thy diseases, just like thy enemies, will be destroyed. (23.) Oh Majesty! may Hari make thee more and more long-lifed, and beloved by the Lotus-seated (Brahmâ); may the Lord grant thee freedom from fear of (mundane) existence, and victory over diseases.

[Verses 24, 25.] To spiritual masters seven-fold should be given of the remedial agent by a good physician; but to a consecrated person, five-fold; six-fold to a prisoner; to the King, three-fold. (25.) Three-fold of it relieves the three humours; five-fold imparts *strength to the five* senses; seven-fold is for the sake of the seven elements: thus chebulic myrobalan is distinguished.

[Verses 26 and 27.] Let him who desires salvation, health, and spiritual exercise, meditate on Hari, partake of chebulic myrobalan, and repeat the Gayatrî prayer. (27.) Chebulic myrobalan, like a mother, is the benefactress of men: and being like a mother it will never hurt them while it is in the bowels.

(B.)—Longer Recension, in 37 Verses.

Sukh-ôpaviṣṭaṁ Brahmâṇam-Âśvinau vâkyam-uchatuḥ | kato Haritaki jâtâ kati-yôniś-cha kirtitâ || 1 || Rasâḥ kati samâkhyâtâḥ kati ch-ôparasâḥ smṛitâḥ | kati nâmâni ch-ôktâni kiṁ cha tâsâṁ cha lakshaṇam || 2 || Kâ kathaṁ cha prayôktavyâ kê cha varjâ guṇâś-cha kê | kêna dravyêṇa saṁyuktâ rôgân-kân-kân-nigachchhati || 3 || Sa tat-pṛiṣṭaṁ yathâ-pṛiṣṭaṁ Bhagavan-vaktum-arhasi | Aśvinôr-vachanaṁ śrutvâ Brahmâ vachanam-abravît || 4 || Prapâta vindur-mêdinyâṁ Śakrasya pibatô 'mṛitam | tatô divyâ samutpannâ sapta-yôniḥ-haritakî || 5 || Vijayâ Rôhiṇî chaiva Pûtanâ ch-Âmṛitâ tathâ | Chêtakî tv-Abhayâ chaiva Jîvanti chaiva jâtayaḥ || 6 || Âlâbu-vṛittâ Vijayâ ch-âvyaktâ ch-aiva Rôhiṇî || Pûtan-âsthimayî sûkshmâ sthûla-mâṁsâ tath-Âmṛitâ || 7 || Âśrâtuś (*sic*) Chêtakî jîêyâ pañchâśrâ ch-Âbhayâ

matā | suvarṇā-varṇā Jīvanti saptānām-api lakshaṇam || 8 ||Sarva-proyōgē Vijayā Rōhiṇī vraṇa-rōpiṇī | lēp-ārthaṁ Pūtanā vidyāt-ēk-ārthaṁ ch-Āmṛitāṁ viduḥ || 9 || Chētakī sarva-rōgēshu nētra-rōgē 'bhayā tathā | Jīvanti chūrṇa-yōgēshu yath-ārham[1]-upakalpayēt || 10 || Parīksha[ṛēt][2]-tatō dhīmān-varṇa-svaguṇa-nāmabhiḥ | kshipt-āmbhasi nimajjōd-yā guṇ-v-krit-sā prasasyatē || 11 || Chētakī dvi-vidhā sā tu kṛish-ā śuklā tu varṇataḥ | shad-aṅgul-āyatā kṛishṇā śuklā ch-aik-aṅgu[3]-ōnmitā || 12 || Kāchid ākhāda-mātrē tu kāchid-gandhēna bhēdayēt | kāchit-sparshēna dashṭv-ānyā s-aira ch-ōktā chatur-vidhā || 13 || Chētakīsh pā-dapa-chhāyām-upasarpanti yē narāḥ | bhidyantē tat-kshaṇād-ēva paśu-pakshi-mṛigās-tathā || 14 || Chētakī tu dhṛitā hastē y[ā]vat-ti[2]shṭhati dōhinaḥ | tāvad-vēgēna bhidyatē pra[śasya][3] n-ētra saṁśayaḥ || 15 || [Nṛipāṇāṁ][3] sukumārāṇāṁ kṛiśānāṁ bhēshaja-dvishām | Chētakī paramā śastā hit-ā[rthinī vi]ṣrōchanē || 16 || Saptānām-apī jātīnāṁ pradhānā Vijayā smṛitā | sukhōpayōgā sulabhā śasyatē sarva-karmāsu || 17 || Haritakyā rasāṁ-pañcha [4] vidyāl-lavaṇa-varjitān [4] | majj-āśritaṁ tu madhuram-āmlaṁ snāyv-āśritaṁ [4] viduḥ || 18 || Tvag-āśritaṁ tu kaṭukaṁ tiktaṁ tvṛint-āśritaṁ tataḥ | asthy-āśritaṁ [4] kashāyaṁ tu rasaṁ-āhur-manīshiṇaḥ || 19 || Kaphaṁ kaṭuka-prāyatvād-amlatvān-mārutaṁ jayēt | pitta-ghnī svādu-tiktatvād-alp-āgnim-ēva [4] pāchanī || 20 || Vātikāṁ-paittikāṁ-rya-māchi-chhlēshmikāṁ-sānnipātikān | prasahya harati vyādhīn-tasmāt-prōktā haritakī || 21 || Sadā hitā manushasya māt-ēva hita-kāriṇī | mātāpi vikriyāṁ [sa][5] ti n-ōdara-rthā haritakī || 22 || Haritakī daridrāṇāṁ sukh-ōpāyaṁ rasāyanam | pathyatvē pravarā prōktā sarv-āmaya-vināśinī || 23 || Tṛishṇāyāṁ kaṇṭha-śōshē cha hanu-stambhē gala-grahē | nava-jvarē tathā kshīṇē gachhiṇyāṁ cha na śasyatē || 24 || Haritakī bhakshyamāṇā [6] nāgarēṇa guḍēna vā | saindhavēna hitā [vā][3] pi śāntayēn-āgni-dīpanī || 25 || Haritakī sama-guḍa-viśvabhēshaja-saṁyutā | nihanty-āmāśayē rōgān-vajrēṇ-ēndrō yath-āsurān || 26 || Haritakīṁ sadā [khā][3]dēt-śarat kālē sa-śarkarāṁ [6] | bēmnī sa-śṛiṅgavēr-āṁ [6] cha śiśirē pippalī-yutāṁ || 27 || Vasantē madhunā miśrāṁ grīshmē cha sa-guḍāṁ tathā | varshāsu saindhav-ōpētāṁ pishṭatah[7] kalkam-athāpi vā || 28 || Unmīlinī buddhi-bal-śrīdriyāṇāṁ nimīlinī pitta-kaph-ānilānāṁ | visraṁsinī mūtra-śakṛin-malānāṁ haritakī syāt-saha bhōjanēna || 29 || Haritakī sarpir-vipākhyayitrī [8] samāsnātas-tat-pibatō 'nu sarpiḥ | Vāt-ātmakāṁ-ch-āsya na santi rōgāḥ syāt-prishṭha-jaṭgh-ōru-kaṭi-balaṁ cha || 30 || Śraṇḍa-taiłēna vipākya pathyā [9] syād-ētad-ēv-ānupibēch-cha | sa-śūla-vishṭambha-kṛitān-[vikārān] [2] sarvāṁ-jayēt-pitta-kaph-ānil-ōtthān || 31 || Mūtē sthitāṁ [10] sapta-dinaṁ dadhi mahishyāḥ [10] pañch-āhbhyā mātra-palāni pañcha | kshīrēṇa yāṭ [10] sapta-dināni khādēt kshīrōdan-āsī paratas-tath-ānyān || 32 || Ēsha tri-saptād-aparaḥ prayōgō vāt-ōdarāṇāṁ tivram-apīha hanyāt | pīlihānaṁ-ānāhaṁ-nṛōgrahaṁ cha sa-pāṇḍu-rōgaṁ cha g-rahaṁ kṛimīṇ-ś-cha || 33 || Haritakī dhānya-tushōda-siddhā sa-pippal-saindhava-hiṅgu-chūrṇā | s-ōdgāra dhūmaṁ bhṛiśam-apy-ajīrṇaṁ nihanti sadyō janayēt-kabudhāṁ cha || 34 || Haritakīṁ vā madhun-āvalihyād [11] -āmātisārē prathamaṁ pravṛittē | pravāhayēt-sā tv-avaśishṭa-dōshān-sam-ōdhayēt-kōshṭham-aśēshatas-cha || 35 || Dvē pūrvam-adyād-aśan-āhitō [12] dvē dvē ch-āpi bhuktvā tu yathā-svayaṁ cha | asya prayōgād-abhay-āshṭakasya tri-sapta-rātrēṇa punar-yavā syāt || 36 || Mēdhā smṛitiḥ śaktir-ativa-kāntiḥ śrimad-vapur-nityam-anāmayatvam | dīpt-āgnitā[d]riṣhṭi-balaṁ cha kuryāt sarvē cha rōgāḥ praśamaṁ prayānti || 37 ||

Translation.

[Verse 1.] While Brahmā was sitting at ease, the Aśvin pair thus addressed him, "Whence has the chebulic myrobalan come, and of how many kinds is it reputed to be ? (2.) How many tastes are ascribed to it, and how many subtastes is it believed to have ? By how many names is it called, and what are the characters of its several kinds ? (3.) How is each of them applied, and what are their colours and qualities ? What diseases do they severally cure, and in combination with what (other) drugs ? It is your Honour, indeed, that is able to answer these questions in their proper order." Hearing the address of the Aśvin pair, Brahmā replied as follows :

[Verses 5-11.] "A drop fell on the earth while Śakra (*i.e.* Indra) was drinking nectar : thence sprang up the heavenly chebulic myrobalan in its seven kinds, *viz.*, (6.) Vijayā and Rōhiṇī, also Pūtanā and Amṛitā ; Chētakī furthermore, also Abhayā and Jīvanti : these are its (seven) kinds. (7.) Vijayā is round like a bottle-gourd ; Rōhiṇī is not *particularly* distinguished ; Pūtanā has a stone and is very small ; and Amṛitā has a large pulp ; (8.) Chētakī may be known by its stone, and Abhayā by its five corners ; Jīvanti has a golden colour : these are the distinguishing marks of the seven *kinds*. (9.) Vijayā may be used for all purposes, Rōhiṇī for granulating wounds, Pūtanā for plasters, Amṛita for one *peculiar* purpose.(10.) Chētakī is useful in all kinds of disease, Abhayā in diseases of the eye, Jīvanti in formulæ for powders : each

[1] MS. *tath-ārham.* [2] Missing in MS. [3] MS. *nikṛiṣya.*
[4] MS. *rasāsh cha, varjitāh, madhu-ām, sādhi-āśritah, asth-āśritāh.* [5] MS. *dipadāmiva.*
[6] MS. *bhakshaṇāyā, and cha śarkarām | bēmnīṁ triṣṇa-vēraṁ.*
[7] MS. *pishṭa.* [8] MS. *vipāchayitvā.* [9] MS. *pathyāh.*
[10] MS. *sthitā, mahishyā, yā.*
[11] MS. *harītakī vā madhu-vāvalehyāt.* [12] MS. *dvauhitā.*

may be used for what it is suitable. (11.) Therefore, a wise physician will examine them according to their colour, quality, and name. A *chebulic myrobalan*, which sinks when thrown into water, is accounted good.

[Verses 12-17.] The Chêtaki is of two kinds, according as it is[of dark or bright colour : the dark kind has a length of six angula ; the bright kind measures one angula. (13.) Some can be distinguished in eating ; some, in smelling ; some, in touching ; others, in biting : this fourfold division is also one which is given. (14.) Any man that approaches Chêtaki lying in the shade of a tree, from that very moment his bowels become loosed ; so it is also with cattle, birds, and wild animals. (15.) But having taken up Chêtaki, so long as it remains in his hand, so long he is affected by motions of the bowels. (16.) For princes, and children, for those who are feeble, and who are averse to medicines, Chêtaki is declared to be most particularly beneficial as a purgative. (17.) Among the seven kinds, Vijayâ is considered to be foremost : it is reputed to be comfortable to use, and easy to obtain, in the case of all medical applications.

[Verses 18-24.] Chebulic myrobalan is known to possess five tastes, only the saline being absent. In its marrow resides sweetness ; in its fibres (lit. sinews), sourness ; (19.) in its bark (lit. skin), pungency ; and in its bud-stalks, bitterness ; but in its wood (lit. bones), astringency : these tastes the discerning ascribe to it. (20.) Phlegm it subdues by the abundance of its pungency ; air, by its sourness ; bile, by its sweetness and bitterness. (21.) Because it effectually removes diseases due to air, bile, phlegm, and the three humours combined, therefore it is called Haritaki (or the Remover). (22.) It is always salutary and beneficial to men like a mother : also, like a mother, it never produces any trouble when it is taken into the bowels. (23.) Chebulic myrobalan is a tonic medicine easily procurable by the poor ; and it is declared to be excellent as a remedy, and to be a cure for all diseases. (24.) But in the case of morbid thirst, dryness of the throat, lockjaw, stricture of the throat, recent fever, consumption, and pregnancy it is not recommended to be taken.

[Verses 25-37.] Chebulic myrobalan, when eaten with dry ginger, or with molasses, or also with rocksalt, speedily promotes digestion. (26.) Chebulic myrobalan, combined with an equal quantity of molasses and ginger, kills diseases in the upper region of the abdomen just as Indra does the Asuras. (27.) Chebulic myrobalan should always be eaten in the autumn with sugar ; in the winter, with ginger ; and in the early spring, with long pepper ; (28.) in the later spring, with honey ; in the summer, with molasses ; and in the rains, with rocksalt : or it may be powdered and made into a paste. (29.) Taken with one's meal, chebulic myrobalan serves to promote one's intelligence, strength, and sensibility, to regulate the flow of the bile, phlegm and air-humours, and the secretion of urine, faeces, and *other* waste products. (30.) Chebulic myrobalan promotes the digestion of one who eats clarified butter with it, or who drinks clarified butter after it : no diseases due to disorders of the air-humour affect him, and he remains strong in his back, legs, thighs, and hips. (31.) Taken together with castor-oil it is a remedy acting on the digestion : that oil should also be drunk after it : it *thus* cures all troubles caused by colic and constipation, due to *disorders of* bile, phlegm, and air. (32.) Five chebulic myrobalans (*abhayâ*), which have lain for seven days in five pala of the urine of a buffalo, if any one eats these with milk for seven days, dieting on rice milk, and so on for other periods (?) : (33.) then this excellent course of treatment will, after three times seven days, cure even severe abdominal swellings due to disordered air, also spleen, constipation, lumbago, jaundice, poisoning by rotten food, and worms.[13] (34.) Chebulic myrobalan (*haritaki*), prepared with sour gruel of rice, and with powders of long pepper, rocksalt, and asafœtida, quickly cures severe indigestion accompanied by eructed gas[14], and engenders hunger. (35.) One should take chebulic myrobalan, in the form of a linctus made with honey, at the first appearance of acute diarrhœa : it will carry off the surplus humours, and thoroughly clear out the bowels. (36.) Two *chebulic myrobalans* one should eat before one's meal, two while engaged in it, and two after having enjoyed it, just as it suits one individually. In the same way, by the use of eight chebulic myrobalans (*abhayâ*) for a period of thrice seven nights (*i.e.* three weeks) one may again grow young. (37.) *Chebulic myrobalan* promotes intelligence, memory, vigour, great beauty, figure, and permanent health, also good digestion and power of sight : and all diseases reach a favourable end.

[13] Translation of vv. 33 and 34 in part conjectural.

[14] *Udgâra-dôsha* of the text appears to be the same as *udgâra-saushya* in AH., III, 14, v. 54.

THE BOWER MANUSCRIPT.

PART III.—PLATES XXXV TO XXXVIII*a*.

B.—TRANSLATION.[1]

First Leaf: Obverse.

(I) An Oil.[2]

(Verses 1—4.) Take one karsha[3] each of well-powdered . . . . . , plumbago-root, Dantî (*Baliospermum montanum*), oleander-root, Guñja (*Abrus precatorius*), Lâṅgalakî (*Gloriosa superba*), Vṛihatî (*Solanum indicum*) Suvarṇapushpî (*Cassia fistula*), Pîlu (*Salvadora persica*), ginger, Nahikâ,[4] and sulphate of iron, (2) and add to them one kuḍava of the milky juice of Arkâ (*Calotropis gigantea*). (3) With all these drugs mix one prastha of oil in four times as much of water, and cow's urine . . . . . (4) *This is a remedy* in cases of . . . . . , ringworm, keloid tumour, and skin-diseases; also in cases of katri-mâlâ,[5] fistulous sores, malignant sores, diseases due to poison and enlargement of the lymphatic glands.

(II) The Vajraka Oil.[6]

(5—9*a*) *Take* . . . . . Kadamba (*Anthocephalus Cadamba*), *root of the* castor-oil-plant, Kushṭha (*Saussurea Lappa*), Pâṭhâ (*Stephania hernandifolia*),

[1] With a very few exceptions the whole of the formulae in this medical treatise are not traceable elsewhere. The exceptions are: formula No. IV, which is found identically elsewhere, No. XI nearly identically, and Nos. VII and XIV more or less differently. See the notes appended to those formulae.

[2] I have not been able to identify this formula elsewhere.

[3] On this and other measures see Part I, note 19, Part II, note 9.

[4] *Nahikâ* is not to be found in any Dictionary, European or Indian, accessible to me. It occurs in AS., VI, 35 (vol. II, p. 313, l. 9) and AH., VI, 30 [cd] (v. 18*a*), this being the only places where I have come across it in any Indian medical work. The commentary there does not explain it. I take it to be a prâkritic spelling for *nakhikâ*, and this to be the same as *nakhî* (or *nakha* or *rajakha-nakha*), which is said to be *unguis odoratus*. See Mat. Med., p. 15, footnote. This *nakhî* is a favourite drug in skin-diseases.

[5] *Katrimâlâ* is unknown to me. I cannot find it in any Indian medical work accessible to me. Possibly there may be a misspelling. One would expect *gaṇḍamâlâ*, or perhaps *kachchhu-pîḍâ*. The smaller Pet. Dict. gives "*katrî* pl. *kutsitâvrayaḥ*," but this affords no help.

[6] In Indian medical works two oils are given under the names of *Vajraka* (or 'adamantine') and *Mahâ-vajraka* (or 'grand adamantine'). See AH., IV, 19, vv. 79, 80 [cd] and vv. 81, 82 [cd]; SŚ., LI, 107-110 [ab], V., LV [cd] (vv. 219-221 and vv. 222, 223); Chd., L., 68 [cd]. Both are remedies for skin-diseases, but though they present coincident points, they are, in any case, quite different recensions. Two other, again quite different, recensions of a Vajraka and a Mahâvajraka clarified butter are given in V., LV [cd], [ab] (vv. 204, 205 and 206-208), Chd., L., 64 [cd].

baberang, ... Nirguṇḍî (*Vitex Negundo*), (6) turpentine, Kompilyaka (*Mallotus philippinensis*), deodar, realgar, Viśâlâ (*Citrullus Colocynthis*), and *root-bark* from the Mahâdruma (*Picus religiosa*). (7) An oil prepared with half an aksha[1] of each of these drugs cures piles and is as good a desiccant as actual cautery or lancet or caustic. (8) . . . . . any kind of sore, ringworm, leucoderma, eczema, psoriasis guttata and inveterata,[2] pityriasis, (9*a*) fistulous sore in the vagina or rectum. *For all these diseases* the Vajraka (or 'adamantine') oil is a remedy.

(III) An Oil by Mâṇibhadra.[3]

(10—14.) Having boiled three hundred pala[1] of Bhallâtaka (*Semecarpus Anacardium*) *and* . . . . . in water, till *the whole* is reduced to one quarter *of its original quantity*,

First Leaf: Reverse.

(11) throw into it one pala each of pastes of powdered . . . . . , Vishâ (*Aconitum ferox*) and Ativishâ (*Aconitum heterophyllum*). This oil *the patient* should drink for one month in doses of suitable strength.[4] (12) After digesting it, he may take food in suitable quantities. By the steadfast use *of this oil*, he will overcome the eighteen *skin-diseases* just as Buddha did the *various* kinds of moral defilements. (13) This prescription, as a remedy for skin-diseases, was given by Mâṇibhadra,[5] out of compassion and tenderness of heart, to a monk who was on the point of death. (14) *A patient*, whose nose and fingers have rotted away, *will be restored* by this *oil*, just as the moon, when delivered from Rahu's *grasp*, fully re-appears to sight.

(IV) A Powder.[1]

(15—19.) *Take* equal parts of Trâyamâṇa,[6] Viśâlâ (*Citrullus Colocynthis*), Katukâ (*Picrorrhiza Kurroa*), ... , cinnamon-bark, and cardamoms, (16) add Nahikâ[2] and Kalasî (*Hamionitis cordifolia*), and make *the whole* into fine powder, *and then* boil it with a kuḍava[3] of the wood of Khadira (*Acacia Catechu*) and the bark of Asana (*Terminalia tomentosa*)[4], (17) . . . . . This may be taken as a draught, or mixing one karsha[5] of each of the powders, it may be taken in one's food. (18*a*) When it is digested, one may eat Shashṭikâ rice[6] with soup

[1] In the original the diseases, here translated by *psoriasis guttata, psoriasis inveterata*, and *pityriasis*, are respectively called *vicharchikâ, maṇḍala* and *sidhma*. In the Nid., p. 177, the *maṇḍala* and *vicharchikâ* are described as similar skin-diseases due to vitiation of the phlegm; and as *maṇḍala* is one of the *shalkkushṭha* or 'great skin-diseases,' while *vicharchikâ* belongs to the *kshudra-kushṭha* or 'minor skin-diseases' (see Nid., p. 179), *maṇḍala* would seem to be a severer form of psoriasis. It has its name from the dry, circular patches, covered with white scales, which overspread the skin; see Nid., p. 174. The *maṇḍala* and the *sidhma* are two of the seven varieties of *shalkkushṭha* or 'great skin-diseases,' and *sidhma* is, by Dr. U. Ch. Dutt, identified with pityriasis; see Nid., pp. 174. 178. See also Part II, note 277.

[2] I have not been able to trace this formula in any other Indian medical work. There is a prescription, ascribed to Mâṇibhadra, in AH., IV, 19[40] (vv. 31, 32), and another in SY., LXXIV, 16, 17, p. 552, but their ingredients are quite different. On the other hand, Chd., I, 57[60], has a formula for a Ballâtaka oil; but it is a simple oil, with no other ingredients, nor is it ascribed to Mâṇibhadra.

[3] *Sakty-upêtaṇ*, lit. endowed with Strength, as qualifying *auṣadaṇ*, does not seem satisfactory. Perhaps the reading should be *śakty-upêtaṇ*, consisting of a *śakti*, or half a pala. See Part II, note 9.

[4] Mâṇibhadra is a well-known figure in Buddhist tradition. He was a Mâha-yakshas, or prince of Yakshas, and is famous for his kindly disposition to people in trouble. He is equally well known to Jain and Brahmanic tradition.

[5] See Part II, note 45.

[6] *Sîdra* is a general term for what is the valuable portion of a thing for medical purposes (and may signify fruit, or wood, or bark, etc.—The wood of *khadira* makes the 'catechu' for 'betel.'—*Yakîda* does not agree with *chûrṇâni*; it may be a clerical error for *yakîd*.

[6] See Part II, note 186.

of Mudga (*Phaseolus Mungo*) mixed with clarified butter. (19) Prescriptions for . . . . . senses (?), just as horses which are oppressed by the heat of the summer are driven without a yoke.[14]

(V) A Linctus.[1]

(20—24*a*.) Take half a pala of iron, the three myrobalans,[15] . . . . . .

Second Leaf: Obverse.

baberang-seeds, half as much of Khadira (*Acacia Catechu*), and of . . . . . a quantity equal to the baberang. (21) Having allowed this to stand for a season of . . . . . , an Elder, while fasting,[16] should take two kalaśa[3] of it in the form of a linctus, *prepared* with clarified butter and honey, (22) when he is afflicted with asthma, or trembling of the fingers, or decay of his teeth, or failure of his senses, or encroachment of old age, while he is devoted to the practice of the Law. (23) If he diets himself on suitable food, *prepared* with clarified butter and milk, he will recover youth and beauty; (24) and by dieting on . . . . . broths and on boiled Mudga (*Phaseolus Mungo*) [17], a patient suffering from any skin-disease, in whatsoever limb or part of his body it may be, will be delivered from his disease, ...

(VI) The Agni Clarified Butter of Ātreya[2].

(25—36.) Take four pala[3] each of . . . . , Pāṭhā (*Stephania hernandifolia*), Tējôvati (*Piper Chaba*), and roots of long pepper, (26) . . . . . , young shoots[18] of . . . . Mālati (*Jasminum grandiflorum*) and oleander, (27) and add seven *pala* of cinnamon-bark, Palāśa (*Butea frondosa*), Sākôṭaka (*Trophis aspera*), ... (28) Now boil *the whole* thoroughly with the addition of some plumbago-root, and take it off *the fire* when it is reduced to one-fourth *of its original quantity*. (29) *Now throw in* . . . . . .

Second Leaf: Reverse.

of Ativishā (*Aconitum heterophyllum*), and an equal quantity of Kaṭukārôhiṇī (*Picrorrhiza Kurroa*), (30) also one kuḍava[3] each of long pepper and baberang, and of Kuṭaja (*Holarrhena antidysenterica*) . . . . . (31) and add two measured pala each of viḍa and saindhava salts[19], also of the carbonates of potash and soda. (32) With *the whole of* this . . . . . and with the *above-mentioned* two kinds of carbonates and salts, the physician should boil one aḍhaka of clarified butter. (33) At the time of digesting one karsha *of this preparation* may be taken to relieve constipation and all . . . . .

[14] The exact meaning of the passage, which is mutilated in the original, is uncertain. But there would seem to be a pun on the words *yôga*, prescription, and *ayôga*, without a yoke.

[15] See Part II, note 15.

[16] *Sthavira* signifies a Buddhist elder.—On *vitôkṣya*, fasting, see the directions in AH., IV, 1 (v. 9), 9 (v. 5).

[17] *Rasa*, in *rasa-dāna*, being without any qualification, probably means, not juice, but broth; see Part II, note 335. Moreover, juice is mentioned in the following *mudga-rasa-dāna*. See also below, v. 68.

[18] *Pravāḍa* probably means here young shoots as indicated by the remaining traces *ātāyāṭ* of the genitive of a plant name, such as *lōpāṭā*, or *harītā*, which are synonyms of various plants, *e.g.*, of *Jayantī*, Sesbania Ægyptiaca.

[19] The lacuna must be filled up with *viḍa-saindhavayôś-cha*; see verse 87 in Part II, also AH., IV, 10 (v. 63, two salts), and IV, 10 (v. 61), 14 (v. 103, five salts).

. . . of mankind. (34) *It also relieves* disorders connected with phlegm and bile, and the different kinds of abdominal tumours. (35) The patient should partake of oleaginous substances[30] in great abundance, and eat fat meat. In cases of obstructed digestion *this preparation* is very desirable. (36) it cures . . . . . well-known diseases. It is called the Agni (or 'plumbago-root') clarified butter, and was devised by Âtreya of old.

(VII) The Siddhârtha Oil by Nârâyaṇa.[31]

(37—53.) Śatâvarî (*Asparagus racemosus*), Aṁśumatî (*Desmodium gangeticum*), Pûtikâ (*Cassalpina Bonducella*)[32], the two Vṛihatî[33], roots of the castor-oil-plant and of Sahachara (*Barleria cristata*), (38) also of Agnimantha (*Premna integrifolia*), bêl, Svadaṁshṭrâ (*Tribulus terrestris*), and Punarnavâ (*Boerhaavia diffusa*). Of each of these drugs boil ten pala[3] in one drôṇa[3] of water, (39) *adding* one prastha[3] of the juice of Śatâvarî (*Asparagus racemosus*), and four prastha of milk. When this is reduced to one quarter *of its original quantity* and strained, take pastes *of the following drugs:*

Third Leaf: Obverse.

(40)

dill, deodar, Mâṁsî (*Nardostachys Jatamansi*), Śailêyaka (*Parmelia perlata*)[34], Vachâ (*Acorus Calamus*), sandal, Tagara (*Tabernaemontana coronaria*), Kushṭha (*Saussurea Lappa*), cardamoms, and Aṁśumati (*Desmodium gangeticum*). (41) Of these boil quantities of one karsha[3] each in that oil. And now hear the virtues of the oil, as thus prepared: (42) It is a remedy for the lame, even in the case of horses[35], also for the humpbacked and the dwarfish; in short for those suffering from rheumatic diseases and distorted bones[36], (43) as well as those who suffer from abdominal tumours due to vitiated air, violent pains in the heart and sides, various kinds of cough and asthma, spleen, abdominal tumours, dropsy, fistulous sores, (44) jaundice, morbid pallor[37], and sickly complexion due to wasting consumption[38]; also for those in whom one limb is

[30] See Part I, note 21.

[31] This formula occurs in the Siddhayôga, Vaṅgasêna and Chakradatta, under the name of *Nârâyaṇa-taila*. In the commentary to Chakradatta, that name is explained as derived either from its author Nârâyaṇa, or from its principal drug *Satâvarî*, which has the synonym *Nârâyaṇî*. As, however, the formula distinctly ascribes the authorship to Nârâyaṇa, and as its proper name is here said to be *Siddhârtha*, and as the formula is also ascribed elsewhere to Vishṇu, who is the same as Nârâyaṇa, that commentator's second alternative is clearly untenable. Vaṅgasêna gives the formula in three recensions, respectively called the *svalpa* or 'small' (XXII, vv. 283, 292[371]), *madhyama* or 'middle' (XXII, vv. 293-302[374]), and *mahâ* or 'great' (XXII, vv. 303-315[375]). With the middle one of these the formula in our Manuscript most nearly agrees; in fact, in several verses there is a verbal identity. But on the whole, our formula represents a distinct, fourth recension. A fifth, short recension is given in Vaṅgasêna XXII, vv. 268-275[371], under the name of *Vishṇu-taila*. Śiddhyôga and Chakradatta omit the *svalpa*, but give the *madhyama* (XXII, 93-103[373] and XXII, 60[374]) and *mahâ* (XXII, 104-112[375] and XXII, 67[376]) and the *Vishṇu-taila* (Chd., XXII, 65[376]). Most of these portions of the formula, which are lost in our Manuscript, can with much probability be restored from the *madhyama* recension. It is a curious coincidence, that AH., IV, 21[407] (vv. 69-72a) gives a *Sahachara* oil which is made with the very same 10 pastes as the *Siddhârtha* oil, and which is ascribed to the ancient physician Bhôja. This Sahachara oil, though made without those pastes, is given in our Manuscript, Part II, verses 329—336.—For a *Nârâyaṇa* powder against *udara*, see Ch., VI, 18[168] (vv. 121-129, wrongly called *mârdvîkâdya*, in Jîv. ed. 1877, p. 680), SY., XXXVII, 18-25[367], AH., IV, 15 (vv. 155—171a).

[32] The identity of *Pûtikâ* is uncertain. The Râjanighaṇṭu identifies it with *mâkshikâ*, honey-bee, which, of course, is here impossible. The Med. Dict. identifies it with *Karañja*, which must be *pûtikarañja* or *udakîrja* (Cassalpina Bonducella), but the latter, according to the Nighaṇṭus, is only masc. *pûtikaḥ*. In the parallel recension, however, in Vaṅgasêna (vv. 288 and 293), the masc. form *pûtikaḥ* does occur.

[33] See Part II, note 76.

[34] See Part I, note 70.

[35] The meaning is not clearly expressed in our text of the formula; but it becomes clear by a reference to the *madhyama* recension (see note 31) which says: "if a horse or an elephant or a man is afflicted with a rheumatic disease."

[36] *Bhagna*, as the parallel recensions show, is short for *vâta-bhagna*, suffering from rheumatic or gouty disease. For it, and *bhagna-dâkî*, see Part II, note 141.

[37] See Part II, note 7.

[38] On *hata-prabhâ*, lit. "destroyed lustre," see Part II, note 471.

atrophied[29] or whose *whole* gait is feeble, (45) and whose sense-powers are wasted (by abuse) or worn out by old age; for those who can hear only loud sounds, and who are stammerers; (46) for those whose mind is weak, and whose acquired knowledge is lost; for those men who have impediments (to intercourse with women) and who are undesired by women; (47) whose testicles are affected by rheumatism[30], and who suffer from severe hernia of the bowels; for those women who are barren or who bear only one child; (48) also for those whose menses are permanent or whose menses are altogether suppressed; for those who do not take conception or who suffer from miscarriages; (49) and for those who, whether barren or productive[31], are subject to severe pains in the womb; for ringworm, keloid, psoriasis guttata and inveterata, and *other* skin-diseases; (50) *in short* for any disease due to *derangement of* the phlegm, or the air, or the bile; also for any one whose mouth is fetid or infested with bad ulcers. (51) Indeed, for every disease this *oil* is said to be a remedy. It may be administered in the form of an errhine, or a draught, or a liniment, or an enema; (52) also in the form of a linctus.

Third Leaf: Reverse.

In any of these ways it is said to promote the life of men. Hence it is truly called the Siddhârtha (or "efficacious") oil, and was devised by Nârâyaṇa. (53 Prose.) The *patient's* diet should consist of leaves of Varuṇa (*Crataeva religiosa*), boiled with the pure buttermilk of goats, and of wheat and other *cereals*.

(VIII) A Liniment.[32]

(54.) Roots of . . . . . and white pepper,[33] powdered and made into a paste with the urine of cows, make an excellent liniment for *the cure of* leucoderma.

(IX) Another Liniment.[34]

(55 and 56.) *Take* gum resin of *Boswellia serrata*,[35] black pepper, baberang, mustard, sulphate of iron, Musta (*Cyperus rotundus*), resin of Sarja (*Shorea robusta*), turpentine, Kâlagandha (a kind of cobra), realgar, sulphate of copper, *and* Kampilya (*Mallotus philippinensis*), (56) together with both Haridrâ.[36] Mix *the whole* with oil, and expose it to the heat of the sun. Anointed with this *preparation*, skin-diseases and malignant sores obtain relief.[37]

(X) A Formula for Boluses.[1]

(57—60*a*.) Take five palas[2] each of Dantî (*Baliospermum montanum*), turpeth-root, *and* baberang, three pala of Musta (*Cyperus rotundus*), one pala of chebulic myrobalan,

[29] The reference apparently is to the disease, called *ekâṅga rôga* or *pakshe-vadha*, paralysis or atrophy of one limb; see AH., III, 15 (v. 40*a*); another name is *ekâṅga-vâta*. A different disease is *ekâṅga-śôpha*, swelling of one limb, *ibid.*, IV, 17 (v. 25).

[30] The reference seems to be to *vâtika-khaṇḍa* (or *vâtika-piṇḍaka*), which, according to Ch., IV, 2[30] (vv. 15, 19) is one of the eight diseases of the sexual organ, when the testicles are destroyed through disorders of the air-humour and digestion (*vâyv-agni-dôshâd aṇḍakanam nâśah smṛtaḥ*).

[31] *Parâsravâ* is not to be found in any medical work or dictionary. From the context it is the opposite of *bandhyâ*, non-menstruant or barren, and should signify excessively menstruant or child-bearing; probably it is the latter, for the former is already expressed in verse 48 by *sthâlârtavâ* and *nashṭârtavâ*. M. Williams' Dict. gives *garbha-pariśrava* as 'birth of a child,' as well as 'secundines.'

[32] See Part II, note 414.

[33] This formula is only found in AH., IV, 19[128] (vv. 71, 72), where it occurs in the identical recension.

[34] See Phac. Ind., I, p. 302, and Part II, note 479.

[35] See Part I, note 80.

[36] The original text has *sama*, normal state; the skin again obtains its normal condition. But *sama* is probably here a false spelling for *śama*, relief.

(58) and two pala of the root of Kâkòdumbarikâ (*Ficus hispida*). Bind *the whole* into a paste with the milky juice of Snuhâ (*Euphorbia neriifolia*), and make it into eighteen boluses. (59) On every tenth day take one *of these* boluses, and after digestion, drink a thin, and on the second day a thick gruel.[37] (60*a*) Within a period of five nights, taken at will, *these boluses* will cure all diseases of the skin. They are well-known as the . . . . . boluses.[38]

(XI) A Linctus.[39]

(61 and 62.) Emblic, beleric and chebulic myrobalans, with baberang, plumbago-root, marking-nut, Avalguja (*Vernonia anthelmintica*), Bhṛinga (*Eclipta alba*), and iron in successively increasing quantities, and steeped in sesamum oil, may be used in the form of a linctus for the cure of all skin-diseases. (62 Prose.) Even in the case of Akâkòlina[40] it may be applied as a liniment.

(XII) A Formula for Pills.[2]

(63 and 64.) *Take* equal quantities of roots of oleander, Indravâruṇi (*Citrullus Colocynthis*) and Lângala (*Gloriosa superba*), together with the gum resin of *Boswellia serrata*[34], add one half as much of soot, and mix *the whole* with a suitable amount of goat's urine. (64) Having made this into pills of the size of a badara[2] apply it dry to an open fistula. The fistula *of a patient who does this*, will be cured in no length of time.[41]

(XIII) A Liniment.[2]

(65.) Punarnavâ (*Boerhaavia diffusa*), Guḍûchî (*Tinospora cordifolia*), dry ginger, also Ishṭakâpathaka (*Andropogon laniger*), ..., and leaves of the Banyan tree, may, when a tube has opened in the fistulous sore of the patient, be applied as a remedy against fistula-in-ano, in the form of a paste prepared with clean water.[42] So experienced physicians say; the best of them, indeed, have constantly recommended it.

[37] On manda 'thin gruel' and *vilepikâ* 'thick gruel,' see Part II, note 360.

[38] It is a great pity that the name of the pills is lost. As two or perhaps three akshuras are lost, and as formulas are generally named after the principal ingredient, the name may have been *dantî-vidâlaka* or *dantîpâṭî-vidâlaka*. I have not been able to trace this formula elsewhere.

[39] This formula is found, though in a slightly different recension, in 8Y., Ll, 29 [37] and Chl., I, 10 [169]. The latter, however, reads *lêpa* or 'plaster'; but the commentary observes that this is an error of the scribe (*lêkhaka-dôsha*) due to his carelessness (*pramâda*), and that the true reading is *lêha* or 'linctus,' as given in another recension (*pâṭha*) of another text-book (*tantr-ântra*). I have not been able to identify this *tantrântara*, but the recension there given runs as follows (in ślôka): *Dhâtrî vibhîtakash pathyâ viḍaṅgâgnim-arush karam | ellguji-lôha-bhṛiṅgâh-cha sachûrṇam-avatra vardhitam || tila-tail-âmitash lihyât trêsêthamâtâd-rasâyanash ||* It may be noted, however, that the prose remark appended to the formula in our Manuscript supports to some extent the reading *lêpa*. V., LV [68] (vv. 139, 140) gives a similar formula for *guḍikâ* or 'pills,' called the *triphal-âdya*. It agrees in seven out of the nine ingredients of our formula. The same formula for pills, but in a much longer recension, is given in V., LV [68] (vv. 142-150), called *triphal-âdyô vidâlaka*. Again the same formula, though in a different, short recension, is given in AH., IV, 19 [43] (v. 45). Further, another formula, similar to ours, for a linctus, occurs in AH., IV, 19 [43] (v. 46) and V., LV [68] (v. 141), under the name of *taṭâkâlkâdi-tika*. It agrees, however, with our formula only in five ingredients.

[40] The word *akâkôlina* is not found in any Sanskrit dictionary available by me; nor can I discover its meaning. Kaviráj Bînod Bihari Gupta suggests that it might be a misspelling for *atk-âtî lînâ*, *i.e.*, "even afterwards when (the eruption) has disappeared, it should be applied, as a liniment."

[41] The construction of these verses is as follows:—"*Mûlâḥ, °guṭikâḥ, °guḍikâḥ*, being acc. plur., are governed by *kṛitvâ*; then comes *tvaṅkâḥ* (scl. *guḍikâḥ*), acc. plur., governed by *dâtavyâḥ*, one who smears (to be read for the false *dâtaḥ*, one who directs); finally *dikatâḥ*, gen. sing. (of part. pres.) depends on *bhagandarash* (*pramôyati*).—The reading of the original text, though somewhat indistinct, is *yukiyâ*, with discretion, *i.e.*, suitably. The emendation *yukta*, in footnote 21, on p. 184, should be cancelled.

[42] The translation is to some extent conjectural, as the text is not in good order; the first half of the verse does not scan and is mutilated. I am informed by Kaviráj Bînod Bihari Gupta that "ulcers are still cured by banyan tree leaves being placed over them with the veins of the leaves opened with a knife." On *piḍak-âdîkhana*, (fistula) produced from a *piḍakâ* (also spelled *piḍikâ*), see 8., II, 1 [58]. It is *bhagandara*, or fistula, in its initial, unripe (*apakva*, or as Chandraṭa says, *abâsina*, unperforated) state, being a mere inflamed swelling (*śôphô 'ca sarvô*; when the latter suppurates, and forms a perforation (*bhêdana*) or tube (*nâḍa*), it is said to be ripe (*pakva*), and is called *bhagam-dara*, perforating the pubes. See AH., VI, 28 (v. 6), Ch., VI, 27 (v. 92*c*), Nid., p. 167. See also Part II, v. 142.

Fourth Leaf: Obverse.

(XIV) A Formula for Pills.[42]

(66—72.) Take half a pala[2] each of *Tâlîsa (Taxus baccata)*[44], black pepper, and Chavya (*Piper Chaba*), one and a half pala of dry ginger, one pala each of long pepper and root of long pepper, (67) one karsha[3] of Nâgapushpa (*Mesua ferrea*), and half a karsha of small cardamoms. Powder *the whole* and mix it with three times its quantity of molasses, (68) and make it into pills of the weight of an aksha.[2] These, taken with liquor, decoction of pulses, milk or broth[45], or with an infusion of turmeric, are a remedy against every kind of hæmorrhoids; (69) against severe abdominal pains, alcoholism[46], vomiting, urinary diseases, and intermittent fever; against abdominal tumours, and pains in the sides; against inflammation, heart-diseases, morbid pallor[47], and chronic diarrhœa. (70) They also cure cough, hiccough, loss of appetite, asthma, worms, dysentery, and severe jaundice, also dyspepsia, and strangury, and slight inflammation.[47] (71) The same powder, mixed with four times its quantity of sugar, makes a most excellent (lit. ambrosia-like) remedy especially in diseases due to derangement of the bile. (72) Or the same pills, modified by *the addition of* three pala of chebulic myrobalans, are an excellent remedy against inflammation, piles, chronic diarrhœa, morbid pallor[47], and severe abdominal pains.

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[48]This *is* as *it is* in the white realm of the white, in the department of the one hundred; svâhâ!

[42] This formula occurs, though in a rather different recension, in AH., IV, 10 [378] (vv. 16-21). The ingredients and ratios differ, but both recensions agree in the three alternative ways of making or using the pills. A similar formula, more like that in the Ashṭâṅga Hridaya, is found in SY., V., 31-40 [94], V., IV [160] (vv. 149-161) and Chd., V, 2 [207], under the name of *Prâṇa-dâ guḍikâ*.

[44] See Part II, note 6.

[45] See Part II, note 335.

[46] *Pâna-dîpaya*, excess in drinking, morbid state induced by excessive drinking; a syn. of *mad-dîpaya*; see AH., IV, 7 (vv. 10, 11).

[47] There may be here a false reading, as 'inflammation' is already enumerated in verse 69. For *adhâritam* one would rather expect *sa-bhâritam*, severe; but perhaps *tâdha* should be read for *tâtha*.

[48] The usual meaning of the phrase *tad-yathâ* is 'this is as follows,' referring to what comes after, while here the phrase would seem to refer to the treatise that precedes. But the translation of the whole remark is conjectural; I do not profess to understand its meaning. It may be noted that its script is different from that in the body of the manuscript (Part III) to which it is appended; it also differs from the script in Part IV of the manuscript which commences on the reverse of the fourth leaf. It agrees more nearly with the script to be seen in Part V, and the remark would appear to have been added by the scribe of that Part.

THE BOWER MANUSCRIPT.

PART IV.—PLATES XXXVIIIb to XLII.

A.—TRANSLITERATION.

First Leaf: Reverse.

1 ◉ Namô Nandi-rudr-êśvaràya — namô âchâryêbhyaḥ namô Îśvaràya — namô Mâṇi(bhad)r(âya) *namas=sarvva-yakshêbhyaḥ*[1]

2 namaḥ sarvva-dêvêbhyaḥ Śivâya namaḥ Shashṭhîyê namaḥ Prajâpatayê namaḥ Rudràya namaḥ namô Vaiśravaṇâya namô Marutânâṁ namaḥ prâsa-

3 kâ patantu imasy=ârthasya kâraṇâ hili 2 kumbhakâri-mâtaṅga-yuktâ patantu yat=satyaṁ sarvva-siddhânâṁ yat=satyaṁ sarvva-vâdînâṁ têna satyêna satya-samayêna nashṭaṁ vinashṭaṁ

4 [ksh]ê[m]-âk[sh]êmaṁ lâbh-âlâbhaṁ jay-âjayaṁ Śiv=ânudarśaya svâ[2] — satya-Nârâyaṇê ch=aiva dêvatê ṛishîshu ch=aiva satyaṁ mantraṁ vṛitis=satyaṁ samakshâ patantu svâhâ satyaṁ ch=aiva tu drashṭavyaṁ ni-

5 ×××××××××× mantr-aushadhînâṁ cha nimitta-valam=am=antaraṁ[3] mṛi-shaṭâyâṁ dêvataṁ Vishṇu navikâyâṁ chaṇṭayâṇṭa ॥ 卐 ॥ 444 Namaḥ puru- 1
sha-siṅghasya prasannas=tê Janârddanaḥ [।]

6 nihatâ śattravas=sarvvê yad=ipsasê[4] kaṁm [॥] Navikkî 333 Na tê śôkô na v=âyâsô 2
nich=ôchchaṁ na cha tê bhayaḥ [।]

Second Leaf: Obverse.

1 [××××∪ — —×××××∪](prâ)psasi [॥] Paṭṭa-bandhaḥ ॥ 222 Sarvva-kâma- 3
saṁpiddhê 'pi sukhaṁ jani=r=upadravaṁ [।] utpannê tatam ch=aiva dêvaṁ
śamaya tê bhayaṁ[5] [॥] Kâla-viddhiḥ ॥ 111 Parihîyatê tê buddhiḥ 4

[1] The italicised words are crossed out in the original.
[2] Read *svâhâ*.
[3] Read *valam=antaraṁ*; *am* superfluous.
[4] Read *ipsasê*. The conclusion of the verse is mutilated. One would expect *karichyasi* or a similar phrase.
[5] In the third pâda one syllable is wanting. Perhaps read *satataṁ*.

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